VOL. 78 NO. 8

textile bulletin

AUGUST • 1952

Sectional INDEX

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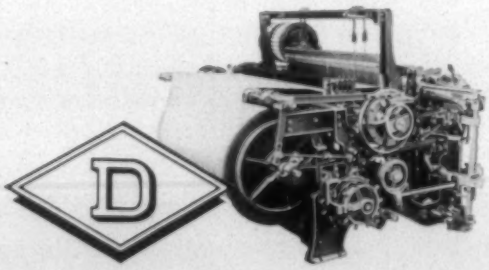
NOW... Finer Quality Cottons FROM DRAPER X-2

with CENTER FORK FILLING MOTION and RATCHET TAKE-UP

The Draper X-2 Model with the new Center Fork Filling Motion and new Ratchet Take-up will give you matched pick goods of the same quality produced for years in synthetics on Draper XD looms.

High Speed Movies, taken at 3000 frames per second, show the action of the center fork on a filling break. The loom stops on the broken pick.



"Retaining Leadership through Research"

DRAPER *Corporation*

ATLANTA, GA. HOPEDALE, MASS. SPARTANBURG, S. C.

THE WORLD'S LARGEST MANUFACTURER OF AUTOMATIC LOOMS

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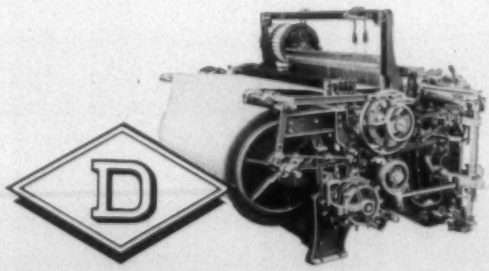

"Retaining Leadership through Research"

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ATLANTA, GA. HOPEDALE, MASS. SPARTANBURG, S. C.

THE WORLD'S LARGEST MANUFACTURER OF AUTOMATIC LOOMS

New Pickers for Old

Your old pickers can be rebuilt exactly like new machines. The basic design of a picker has not changed in more than 50 years, and therefore a thoroughly modern picker can be built right into the old frames at a big saving in cost. The old frames are valuable, and are just as good as new ones.

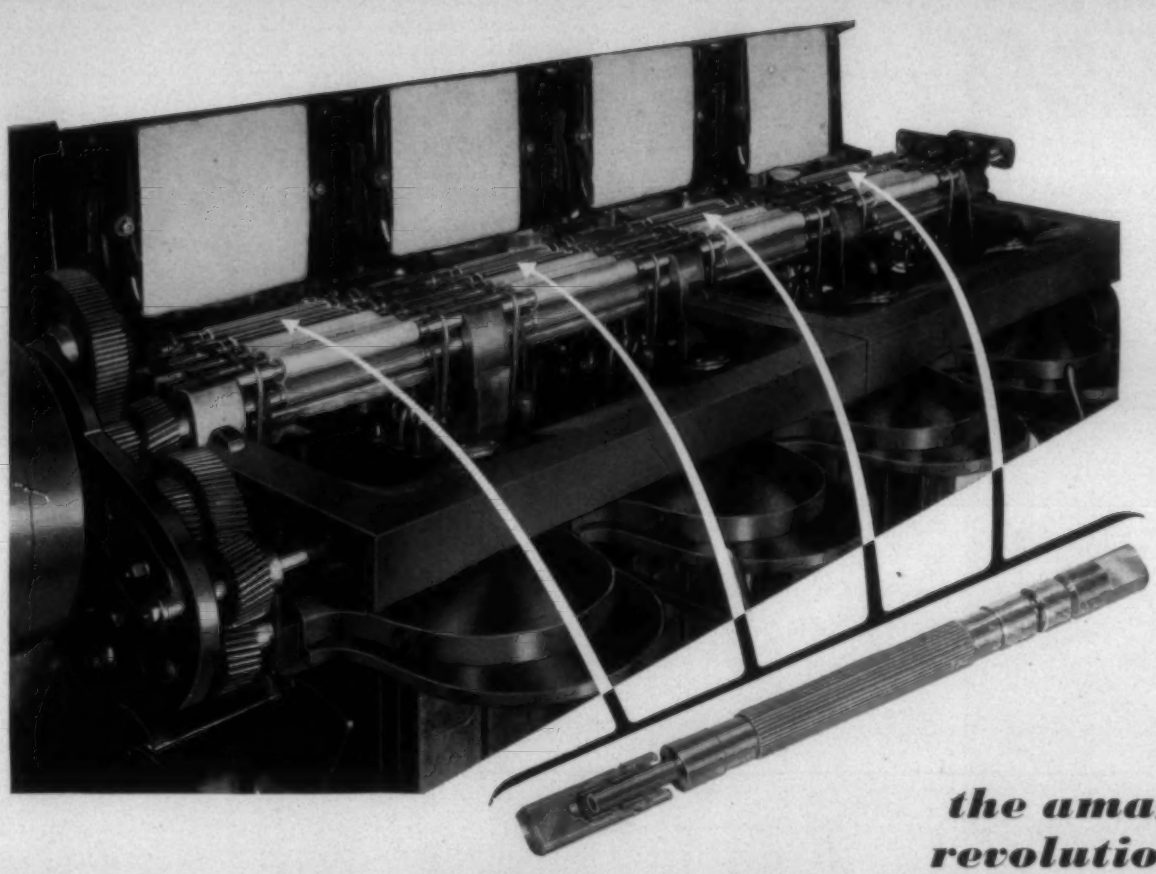
Where it is not feasible to send your pickers to us for rebuilding, we will exchange them for rebuilt pickers of the same model. Our truck delivers a new picker at your plant and takes away an old one. The new picker can be making laps the day after it is delivered.

Where pickers do not need complete rebuilding, but should have a thorough overhauling, this work can be done right in your picker room with one of our skilled machinery erectors in charge of the work.

We keep a large stock of picker repair parts always on hand, and fill repair orders within 24 hours after their receipt. In an emergency, telephone us in the morning and you can have the picker repair parts at the mill the following day, if you are within about 500 miles of Greenwood.

Aldrich Machine Works

Greenwood, South Carolina



the amazing, revolutionary

RGM DRAWING FRAME ROLL

DEVELOPED and PRODUCED by GOSSETT

makes an old drawing frame better than when new!

How can we make an old Drawing Frame better than when new? The photograph above shows how GOSSETT technicians changed this old frame from one with 4 rolls 6 ends up to one with 5 rolls 8 ends up. The first, second, and third line rolls, top and bottom, are common rolls made by GOSSETT . . . the fourth and fifth line rolls are the amazing, newly developed RGM metallic rolls made by GOSSETT and which are so hard that even a steel file cannot cut them! The set-up is of graduated pitch flutes.

During the re-building process more things happened to the old Drawing Frame. The top rolls were equipped with GOSSETT roller bearing shells (there are none better) . . . so this old frame will now draft 8 to 11. Further, we installed new stands, new calender rolls, new tension train of spiral gears and studs, new drafting gears and studs, and re-built the coilers, can tackles, and installed new trumpets. Yes . . . it's an old Drawing Frame better now than when new. Takes know-how and equipment. GOSSETT has both PLUS the amazing and exclusive RGM metallic roll.

GOSSETT will also re-build Drawing Frames with the 4-roll system in the same manner.

Write for full particulars and estimated cost

More About the RGM METALIC DRAWING ROLL

The flutes and collars have been so hardened by the GOSSETT exclusive method that even a steel file will not cut them. The flutes on the RGM roll are so precision made that no tool marks can be found. The tolerance on the flutes, collars, and neck is plus or minus .0005.

B. W. GOSSETT, President — E. C. MASON, Sales Manager
D. W. SMITH, N. C.-Va. Representative

GOSSETT MACHINE WORKS, INC.

GASTONIA, NORTH CAROLINA

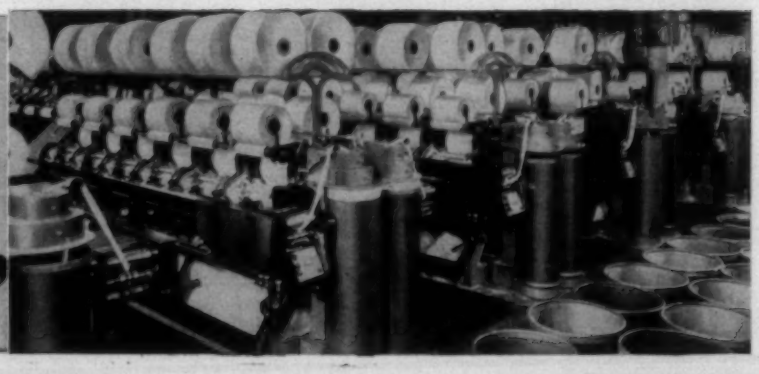
Here are a few quotes from

Fitchburg Yarns

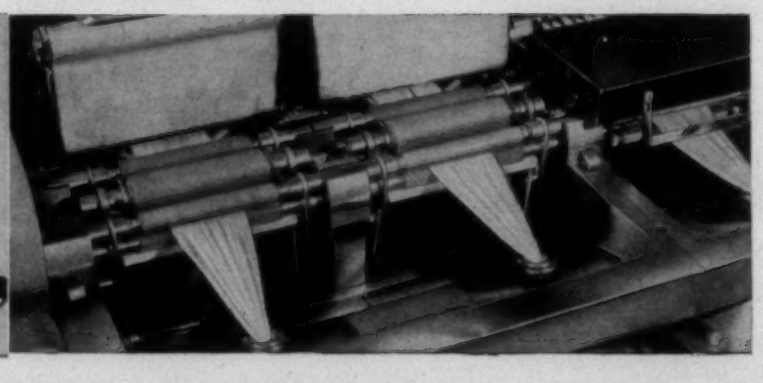
the publication of
Fitchburg Spinners Sales Corporation
which represents Fitchburg Yarn Company,
Watatic Spinning Mills, Inc. and
Wachusett Spinning Mills, Inc.
long-time users of Saco-Lowell equipment.

"**ENDS X ENDS X ENDS**... part of the formula for producing a better quality yarn, faster. These new lap winders and drawing frames combine 320 ends into a ribbon lap where previously it had been possible to join only 64. Laboratory tests prove the sliver is evener and better prepared for the next step, the comber."

"**TWO HEADS ARE BETTER THAN ONE**... and these new combers prove it by producing three times as much as the old style. Better than that the yarn is cleaner and the combing much more complete. Variation in the sliver from these combers has been cut by 50%."



"**NEW DRAFTING**... with improved rolls that turn at precisely controlled speeds has reduced variation in this operation. Yarn is drafted evenly by vari-sized rolls, each turning at a carefully set speed. With short fibres removed in the comber the 1,920 ends are now joined in a single even sliver."



On request, a Saco-Lowell engineer will gladly discuss with you the many features of Saco-Lowell Combers and 3-over-4 Drawing Frames.

SACO-LOWELL

60 BATTERYMARCH STREET, BOSTON 10, MASS.

Shops at BIDDEFORD, MAINE *and* SANFORD, N. C

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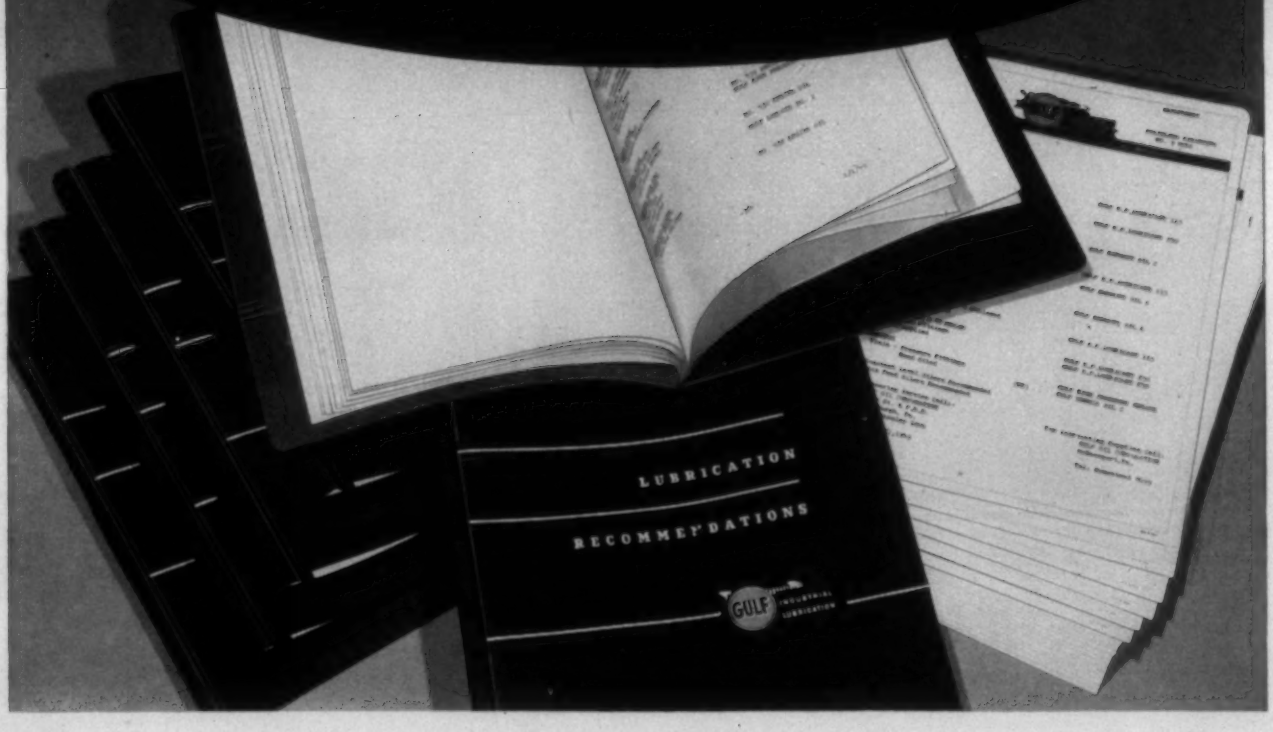
NUMBER 3 OF A SERIES

How Gulf Periodic Consultation Service helps textile mills cut lubrication and maintenance costs

PRACTICAL SIMPLIFIED LUBRICATION CHARTS PROVIDED



A logical source of information and help on any problem that involves lubricants or lubrication is a trained Gulf Lubrication Engineer. You'll find he does more than simply recommend the proper oils and greases for every type of equipment in your mill. He offers effective help on every phase of lubrication!

After he has completed a survey of your plant equipment and operating conditions, for example, he will offer two types of lubrication aids. The first, a master lubrication chart in book form which is to be retained in the maintenance office, contains an itemized list of all your equipment together with recommended Gulf lubricants and the methods of application. The second, a group of plastic bound wall charts, is provided for each department or section. These durable charts are used in the department or section to which they apply.

This system has proved to be very practical without being cumbersome—the oilers have a permanent, convenient reference chart near the point of lubricant application, and their supervisors have an effective means of controlling the overall picture and of checking such factors as number of different lubricants in use.

This is just one phase of the plan known as Gulf Periodic Consultation Service. For additional information and for expert help on any specific lubrication problem, call in a Gulf Lubrication Engineer today.

GULF SERVES INDUSTRY

Gulf Oil Corporation · Gulf Refining Company

719 Gulf Building, Pittsburgh 30, Pa. TB

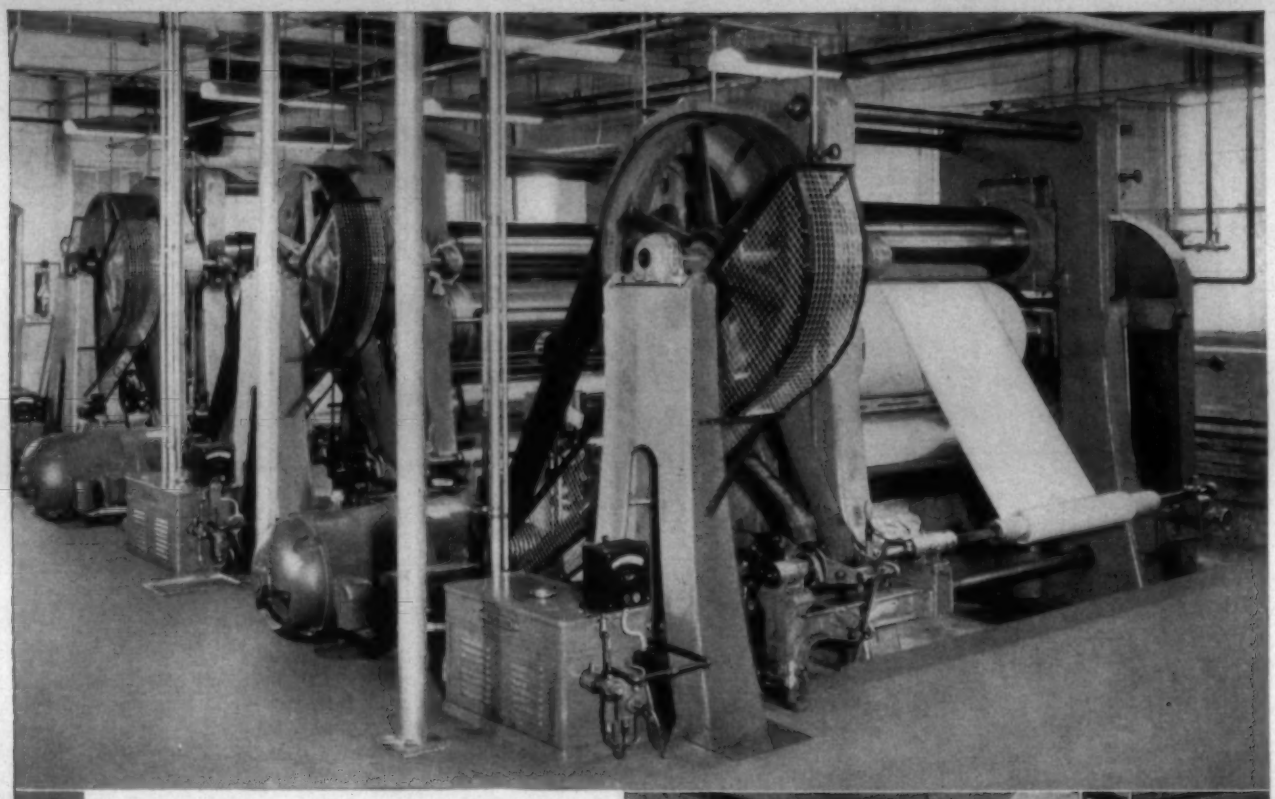
Please send me, without obligation, a copy of the booklet "Gulf Periodic Consultation Service."

Name.....

Company.....

Title.....

Address.....



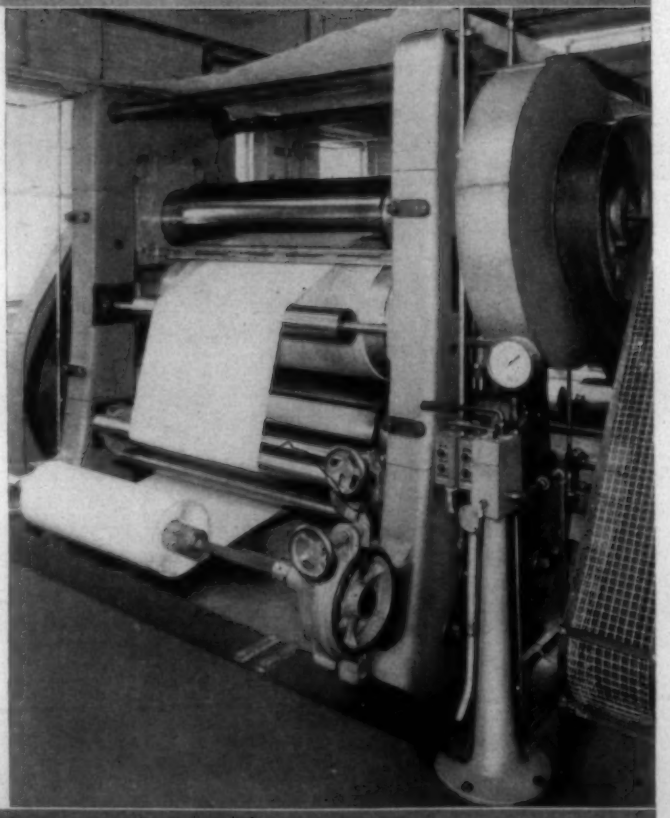
Customer's Verdict:

"Friction calender of the year"

"Smoothest running friction calender ever built"

Battery of three Perkins Friction Calenders incorporating new and proven ideas which contribute to smooth operation and high efficiency; roller bearings leakproof for life-time—seals eliminated; hydraulic equipment with built-in accumulator, self-contained in compact housing; friction drive by chain, easily adjustable for any friction percentage desired; all other details of construction up to the highest standards of engineering.

CLEANLINESS SMOOTHNESS NOISELESSNESS



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HOLYOKE, MASS., U.S.A.

LARGEST MANUFACTURERS OF CALENDER ROLLS IN THE WORLD

for versatility • quality • economy

Cellitons dye:

ACETATE . NYLON . DYNEL . ORLON® . ACRILAN® . DACRON®

Outstanding properties are

complete line of shades
excellent dispersion
uniform standardization
fastness to light
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Samples of the CELLITONS can be obtained from any of our sales offices. Our Technical Laboratory will help select the proper dyestuff and method of application on any coloring problem.

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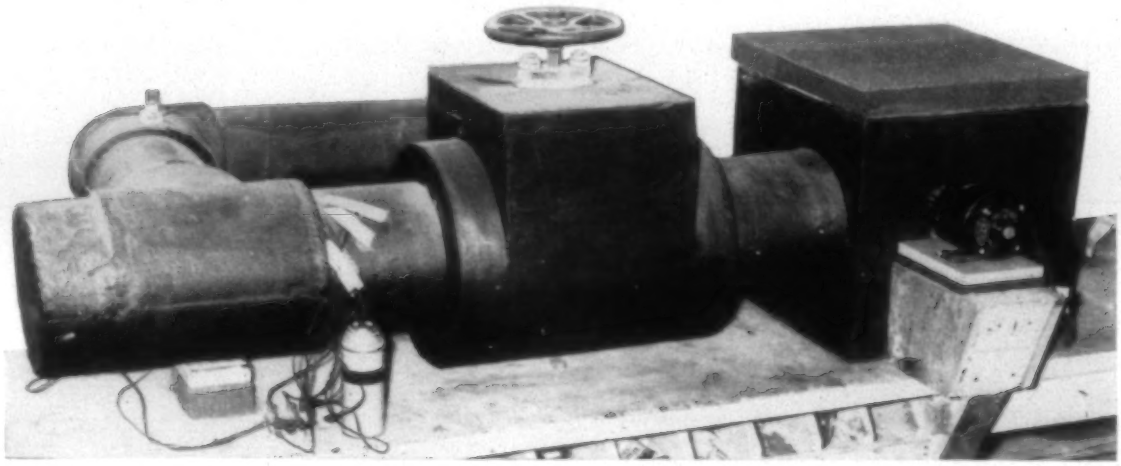
ON THIS APPARATUS, 3" FOAMGLAS Pipe Covering was tested for a period of one year, cycling between *minus 100° and plus 350° F.* The test was designed to accelerate any deterioration that might occur under actual field conditions. A total of 52 cycles was completed, with no loss of insulating efficiency.



THIS DUAL-TEMPERATURE TEST PROVED

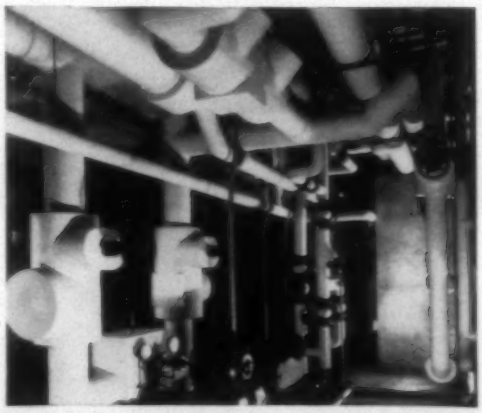
"No loss of insulating efficiency"

● Its ability to withstand *both* extremely low and high temperatures —over long periods of time—has won wide preference for FOAMGLAS among mill owners. It is being used successfully on chilled water lines, steam and process piping. FOAMGLAS has also proved its effectiveness as structural insulation in walls, floors and roofs of weave rooms, dye houses and bleacheries.

The insulating efficiency and durability of FOAMGLAS are due to its cellular glass construction, which prevents moisture and other harmful elements from getting into the material. So it will not get soggy, slip out of place, rot or shrink, as do ordinary materials which constantly need costly maintenance and finally have to be replaced.

Get the latest information on FOAMGLAS whenever you need insulation. Just send the coupon for a sample of the material and copies of our authoritative booklets.

PITTSBURGH CORNING CORPORATION • PITTSBURGH 22, PA.



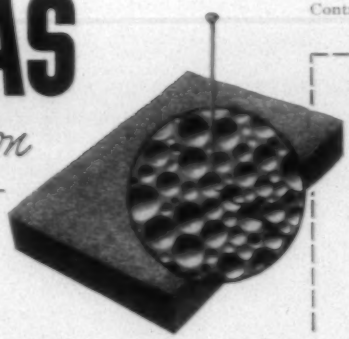
FOAMGLAS insulates these chilled water and heating lines. A canvas and paint finish is shown on the insulation. General Contractor: Beers Construction Co., Atlanta, Ga. Insulation Contractor: North Brothers, Atlanta, Ga.

PITTSBURGH PC CORNING

FOAMGLAS®

the cellular glass insulation

The *best* glass insulation is cellular glass. The only cellular glass insulation is FOAMGLAS. This *unique material* is composed of *still air*, sealed in minute glass cells. It is light weight, incombustible, verminproof. It has unusually high resistance to moisture, chemicals and many other elements that cause insulation to deteriorate.



Pittsburgh Corning Corporation
Dept. V-72, 307 Fourth Avenue, Pittsburgh 22, Pa.

Please send me, without obligation, a sample of FOAMGLAS and your FREE booklets on the use of FOAMGLAS for Normal Temperature Commercial, Industrial and Public Buildings ☐ Piping and Process Equipment. ☐

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City ..... State .....

from raw stock to piece goods

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CHEMICALS

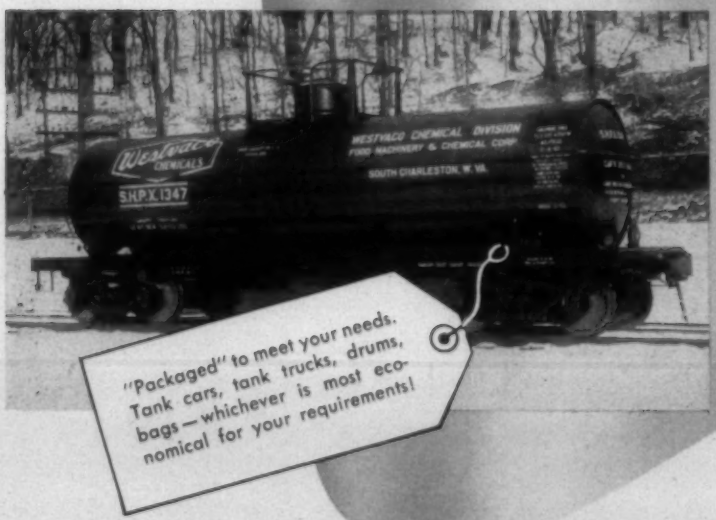
TRADE MARK

can help you to cut wet-processing costs

At every wet-processing step we have been helping leading cotton, rayon and woolen mills to keep production flowing smoothly through dependable delivery of dependably uniform Westvaco Textile Chemicals.

Expanding integrated output from our South Charleston, West Virginia and Carteret, New Jersey plants enable us to render exceptional service from Maine through the Carolinas. No other producers are better located to serve so many important textile centers on alkalis, phosphates and other textile chemicals.

If we aren't providing a fair share of your requirements, we will welcome an opportunity to quote on any of the chemicals listed here. You'll find Westvaco a dependable supplier with a friendly interest in your needs, whether the market is short or long. Your phone call or letter will get prompt attention.



"Packaged" to meet your needs. Tank cars, tank trucks, drums, bags—whichever is most economical for your requirements!

alkalis

CAUSTIC SODA
Liquid 50% Standard and Rayon Grades
Liquid 70-73% Standard Grade
Flake and Solid

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Liquid 45%
Flake and Solid

phosphates

Acid Sodium Pyrophosphate
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Tetrasodium Pyrophosphate
Tetrapotassium Pyrophosphate
Dipotassium Phosphate
Disodium Phosphate
Sodium Tripolyphosphate
Tetrasodium Pyrophosphate Crystals
Monopotassium Phosphate
Tripotassium Phosphate

other chemicals

Barium Peroxide
Blanc Fixe (Barium Sulphate)
Carbon Bisulfide
Carbon Tetrachloride
Fire Extinguisher Fluid
Hydrogen Peroxide
Magnesium Chloride
Sodium Sulfide

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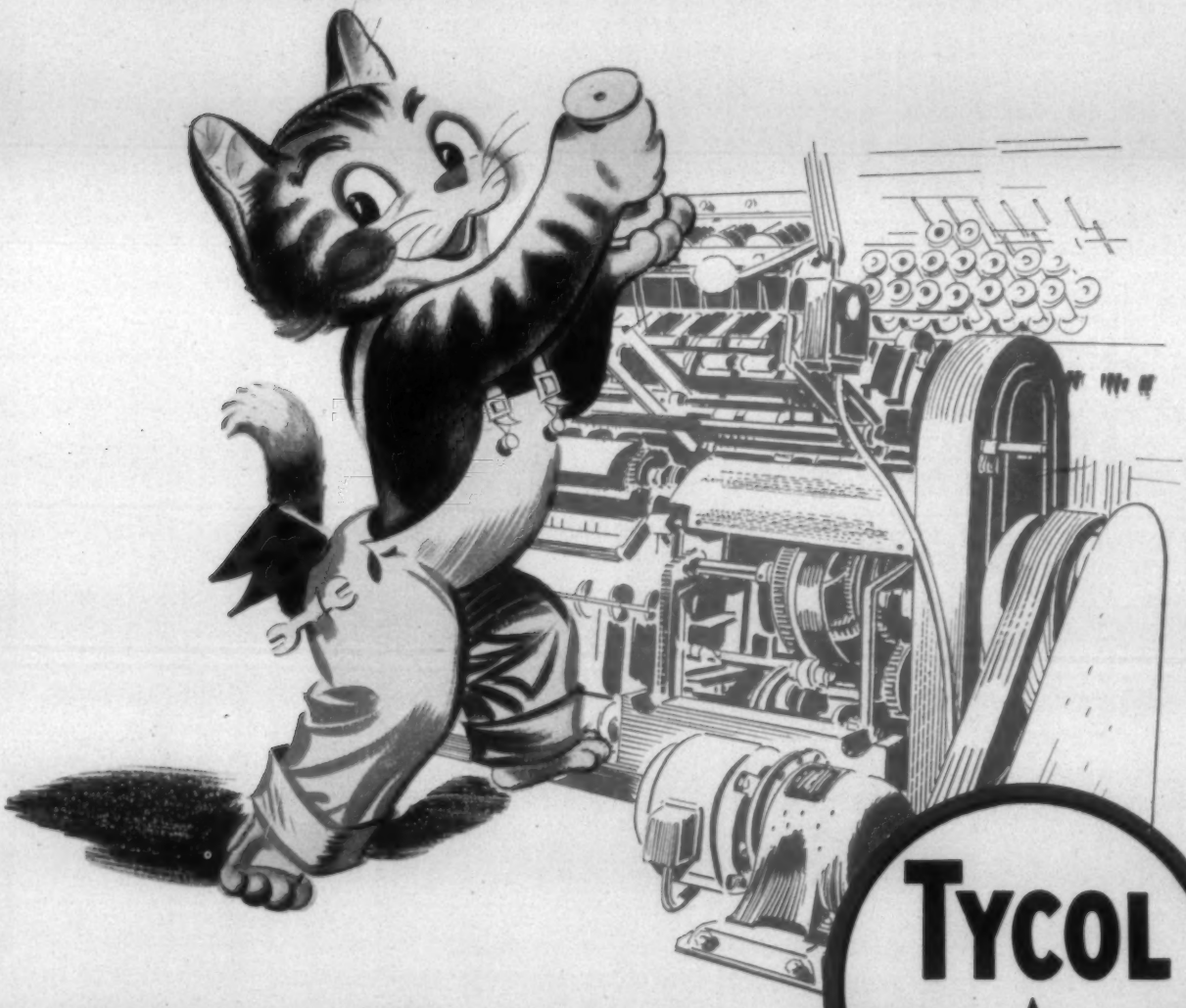
fmc

"Tycol Alweave cuts power consumption... lessens tube loss... lowers equipment down time"



Check! Tycol Alweave Textile Oils reduce thread breakage —hold spindle drag and bolster losses to a minimum. Their high stability and easy scourability let mills operate at top production speeds, with far fewer stoppages.

Specially designed Tycol Alweave Oils are available in a wide range of both mineral and compounded grades. They'll step up efficiency in every mill process.

Learn more about Tycol Alweave Oils. Get in touch with your nearest Tide Water Associated office today.

TYCOL

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TIDE WATER ASSOCIATED OIL COMPANY

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SEND FOR A FREE COPY OF "TIDE WATER ASSOCIATED LUBRICANIA"

Announcing the new WPF&M
HOT AIR SLASHER

HOT AIR DRYING at its best

UP TO 1500 LBS. PER HOUR

REASONABLE INITIAL COST

LOW OPERATING COST

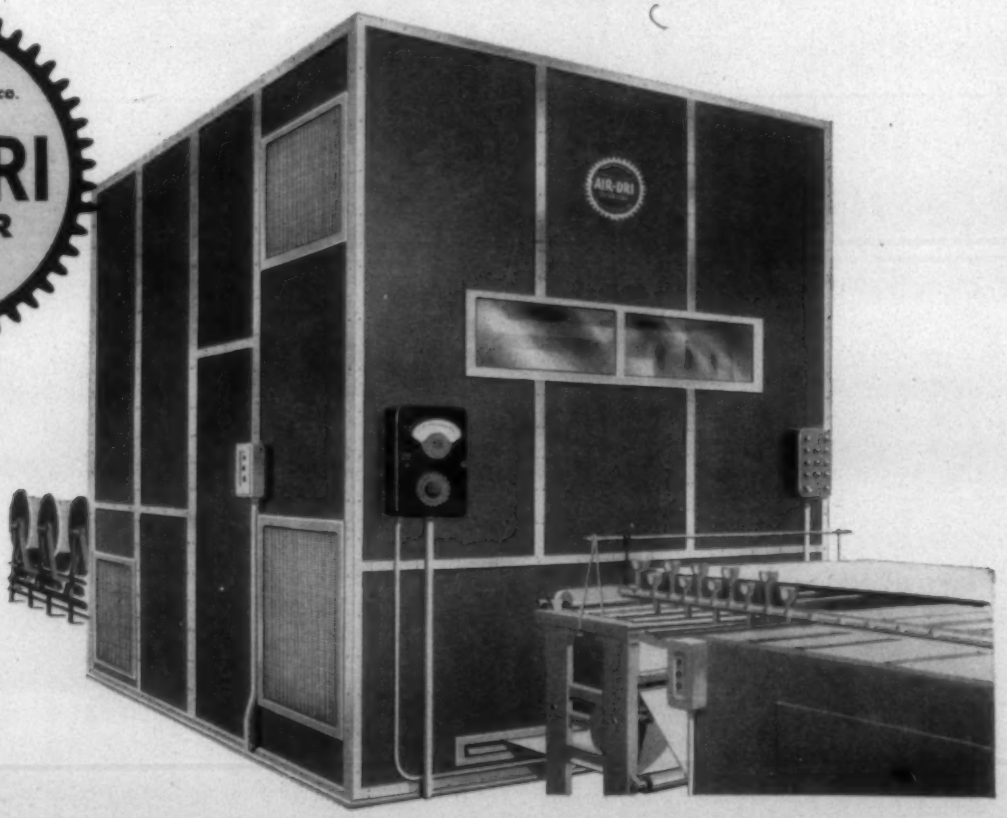
Here's a new high-production hot-air slasher, designed for natural or synthetic fibers, capable of greatly increasing production with little increase in space requirements.

With efficient new Air-Dri Slashers as replacements for out-of-date equipment, you can, in many cases, triple your slasher room output, eliminate overtime and greatly improve warp quality.

Yarn is 40% dry by the time it reaches the first guide roll because a wet splitting device divides the yarn into layers as it enters the dryer.

We will be glad to furnish you with detailed specifications for the advance-design Air-Dri Slasher on request.

WEST POINT FOUNDRY & MACHINE CO.
AIR-DRI SLASHER
WEST POINT, GA., U.S.A.



WPF&M WARP PREPARATION MACHINERY

Standard 2 and 3 Cylinder Slashers
Cyl-Air Slashers — Air-Dri Slashers
Multi-Can Slashers — Callaway Sample Slasher
WPF&M Hi-Speed 4 Cylinder Slashers

SLASHER MODERNIZATION EQUIPMENT

Hi-Speed Head Ends with Stretch Control
Standard WPF&M Head Ends
Multi-Motor Drives and Controls
Temperature, Speed and Tension Control Devices
Hi-Speed Size Boxes — Model 50 Size Boxes
Standard Size Boxes — Size Kettles and Equipment

WPF&M

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N.Y. AUGUST, 1952

NEW MODEL OF EUROPEAN GEAR-DRIVEN SPINNING MACHINE INSTALLED BY AVISCO

Experimental quantities of yarn with commercial qualities are being produced by a "Perfect" Spinning Machine with 320 gear-driven spindles recently installed by Avisco in its Textile Research Department at Marcus Hook, Pa. This type of machine has been in service since before the last war in several countries in Europe, but it is relatively new in this country.

The machine is designed to handle 100 per cent rayon, rayon and natural fiber blends, or 100 per cent worsted yarns in lengths ranging from 1½ to 9 inches. The drafting element is composed of a broad apron with carrier rolls, and the center section is so designed that it is easily adjusted to handle various lengths of staple. The broad apron covers six or more spinning positions according to the gauge of the frame. This arrangement facilitates cleaning and allows the spinning of various staple lengths to a quality yarn.

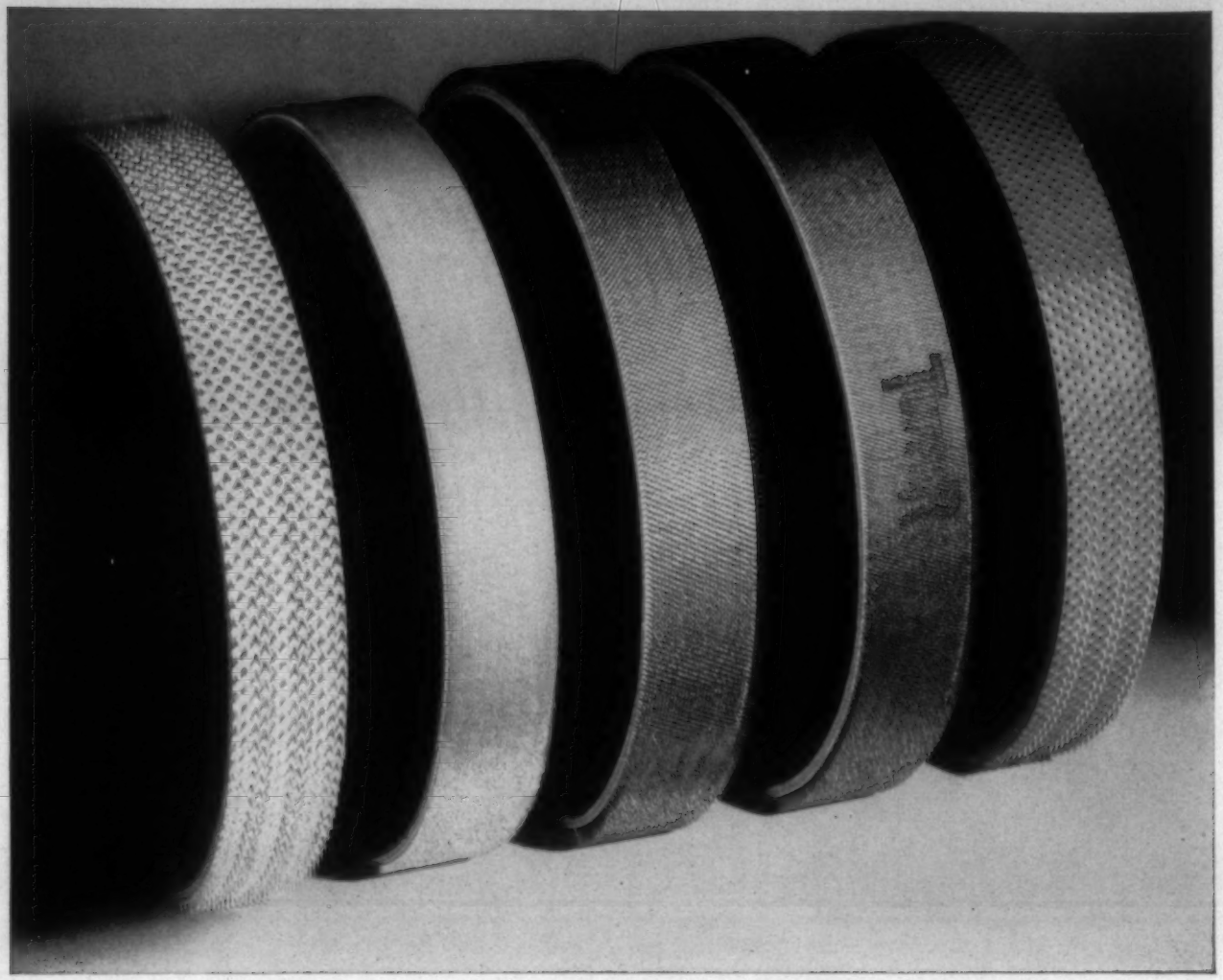
Avisco's Textile Research Department plans to run the "Perfect" machine in comparison with drafting units supplied by American manufacturers and compare uniformity of twist from bobbin to bobbin with conventional methods. All interested mill men are invited to watch demonstrations of this and other frames at Marcus Hook.

RAYON 20 YEARS AGO

ROME, August 1932 – 2,000,000 rubles are being spent in Italy for rayon machinery by the Russian government.

NEW YORK, August 1932 – The popularity of open-mesh dresses has created a demand for rayon slips in deep costume colors.

NEW YORK, August 1932 – Perfumed rayon hosiery is being offered by manufacturers.



A Superior Product for EVERY TYPE of Carding

TUFFER Card Clothing

TUFFER PRODUCTS

Card Clothing for Woolen, Worsted, Cotton, Asbestos and Silk Cards • Napper Clothing, Brush Clothing, Strickles, Emery Fillets. Top Flats Re-covered and extra sets loaned at all plants. Lickerins and Garnet Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant • Midgley Patented, and Howard's Special Hand Stripping Cards • Inserted Eye & Regular Wire Heddles

You can be sure of getting the Card Clothing best suited to your needs when you ask for a Howard Bros. recommendation. Our factory makes a superior product for every carding operation. Because we are equipped to make all types of Card Clothing from the coarsest size of wire to the finest, we feel well qualified to help you solve any of your carding problems. To be *sure* — specify TUFFER . . . made by our patented Tufferizing process giving you absolute precision and uniformity.

Visit our booth at Sections 245–46, Southern Textile Exposition, Greenville, South Carolina, October 6–11

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Georgia and Gastonia, N. C. **Branch:** Philadelphia, Pa.

Direct Representation in Canada

A-3

. . . IT PAYS TO SPECIFY TUFFER CARD CLOTHING

Avoid Set-marks

NU-FILM, a new, non-congealing warp size, reduces formation of "set marks" . . . does away with "hard size" — drastically reduces rayon seconds.

NU-FILM's better running properties increase weaving efficiency. NU-FILM reduces loom shedding. Minimizes formation of slubs.

NU-FILM washes out of fabrics easily with soap and water. Permits low, comfortable humidity in your weave room.

Use it on spun rayon blends, cottons, and filament viscose yarns. For full information, clip and mail the coupon. **Offices:** 270 Madison Avenue, New York 16; Boston; Providence; Philadelphia; Atlanta; New Orleans; and other principal cities.

TB

I'D LIKE TO AVOID SET MARKS NU-FILM

Please send ☐ Technical data ☐ Sample ☐ Technical assistance. Have a representative arrange for a NU-FILM trial.

Name_____ Title_____

Company_____

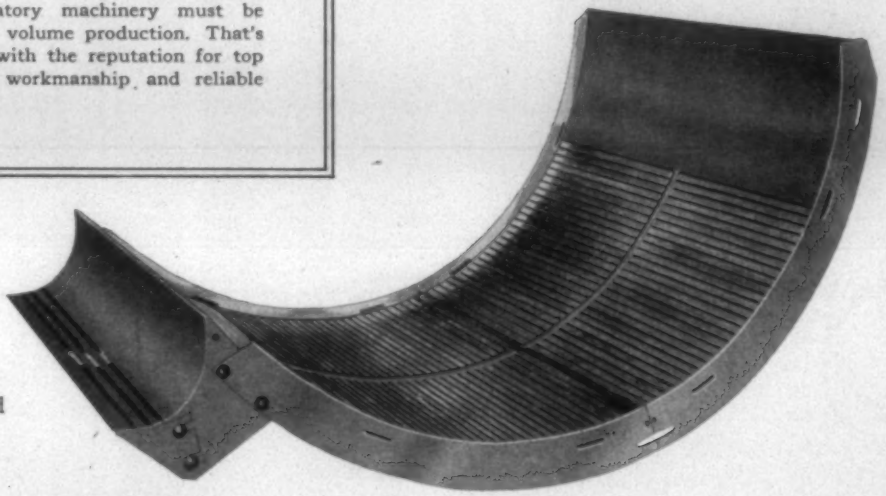
Address_____

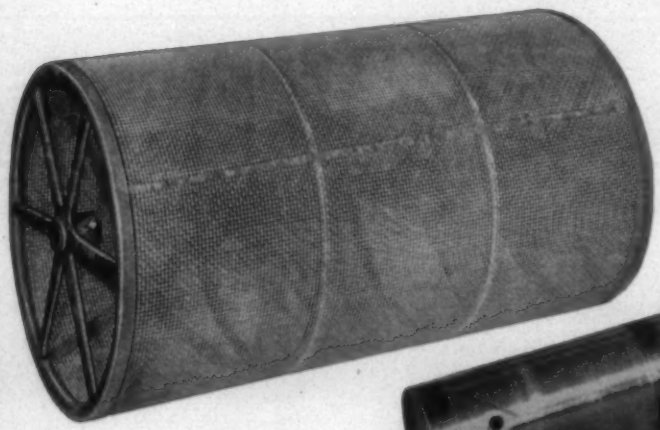
City_____ Zone_____ State_____

MORE PRODUCTION AT LOWER COSTS with GASTONIA TEXTILE SHEET METAL PARTS

The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.

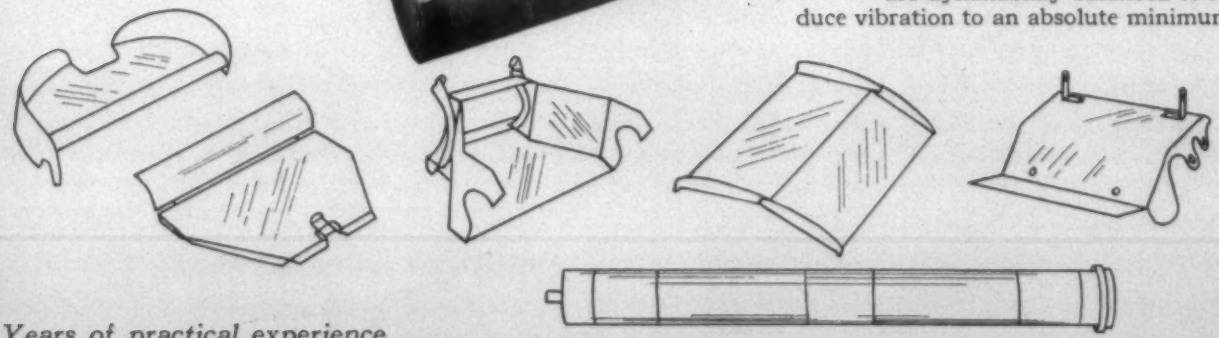
Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.





Picker, Condenser and Waste Machine Screens of maximum strength and durability are constructed of the best materials available.

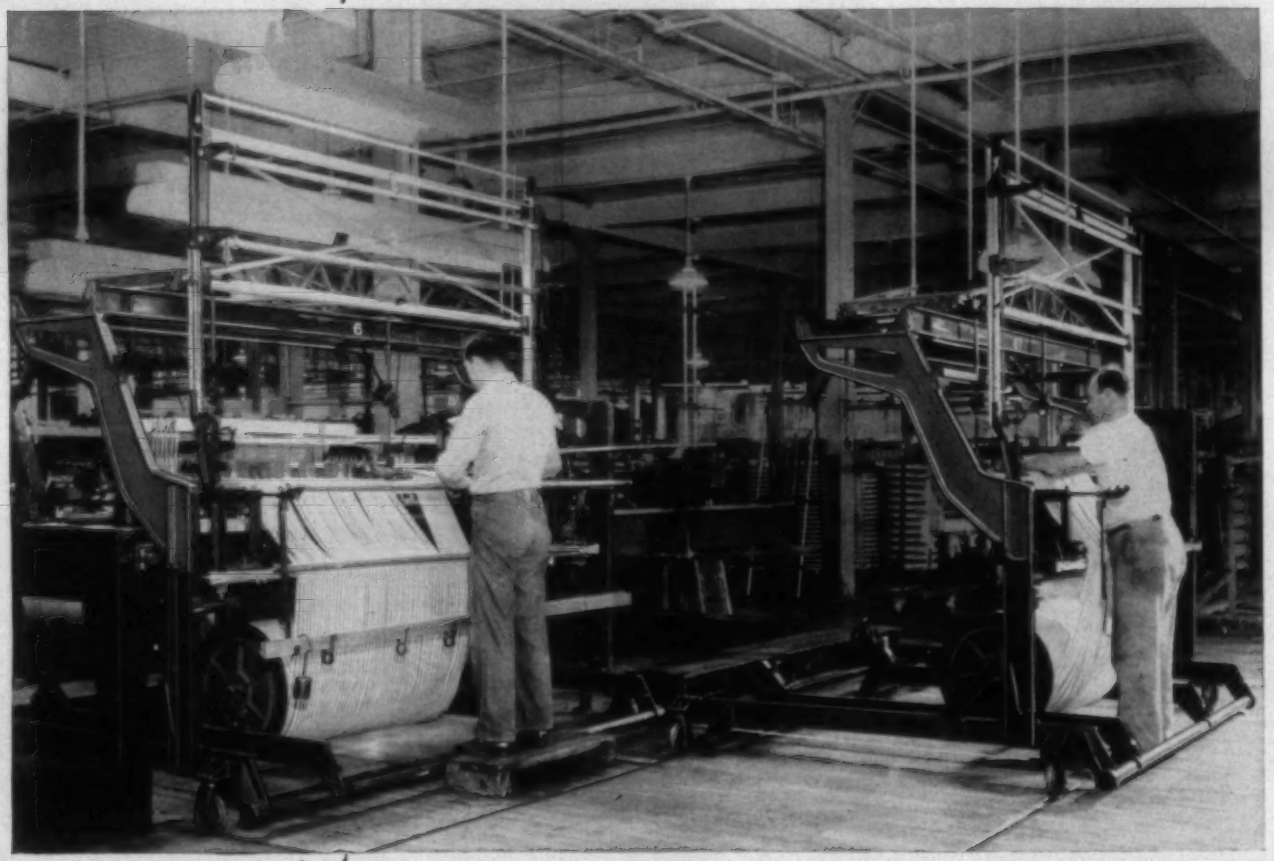
New and rebuilt Cylinders are dynamically balanced to reduce vibration to an absolute minimum.



Years of practical experience —the finest of raw materials —and precision machinery in the hands of skilled workmen go into every product.

GASTONIA TEXTILE SHEET METAL WORKS, Inc.
GASTONIA, NORTH CAROLINA
A SHEET METAL WORKS SERVING TEXTILE MILLS

The use of **BARBER-COLMAN WARP DRAWING MACHINES** substantially reduces warp preparation costs for mills requiring constant changes of pattern...



The above illustration shows one of several Barber-Colman Warp Drawing Machines in operation at the Schoolfield Plant of the Dan River Mills, Danville, Virginia.

At Dan River, a large variety of striped cotton warps are drawn daily. The use of Barber-Colman Warp Drawing Machines substantially reduces warp preparation costs for mills requiring constant changes of pattern. A single machine operated by an experienced operator and helper provided with well-slashed warps will obtain production equivalent to seven or eight Drawing-In Hands.

DATA

Warps per eight hour shift: 8 — 11 average
35/1 Cotton 2884 ends per warp, 72 ends per inch, 36-1/2 dent
Reed Straight Draw, 6 Harness — 4 Banks of Drop Wires, 160 PPM

The Warp threads are drawn through Drop Wires, keyhole-type Heddles and the Reed in one operation from any predetermined draft. If you are not already equipped with keyhole-type Heddles, now would be the time to change as these are necessary equipment in order to operate a Barber-Colman Warp Drawing Machine.

AUTOMATIC SPOOLERS
SUPER-SPEED WARPERS
WARP TYING MACHINES
WARP DRAWING MACHINES

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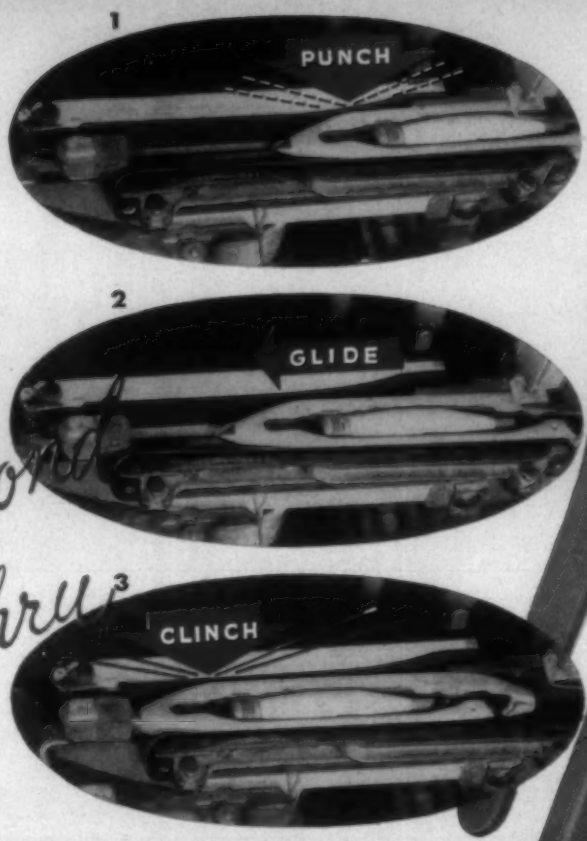

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SOUTHERN TEXTILE HERITAGE

By W. M. McLaurine

— Part Six of a Series —

IN THE preceding story we discussed men past and present, men who had had given tone and quality and dignity to the Southern textile industry and an assurance for its success.

In this story we shall study some of the prime motives. They are expressed in the declaration of the late J. W. Cannon, as he left a successful mercantile business to begin the now gigantic structure of the Cannon Mills. He said, in 1885, the South needs textile industries to relieve the Cotton South of its plethora of raw staple; it needs jobs for people who want to work in order to remove farm poverty and lack of trained minds which are the handicap of too many.

William Gregg, in the establishing of his mill, said it was to be an "asylum for widows and orphans." Broadus Mitchell in *The Rise of the Cotton Mills in the South* recounts the eloquence of Henry Grady, the influence of newspapers such as the *Atlanta Constitution, The Charlotte Observer* and *The Charleston News and Courier,* calling for textile industries to save the South.

The fever fanned by the new idea of Southern economic salvation for its people, spread through the South like the passage of the great Methodist revival in the early 19th Century. In Salisbury, N. C., after an emotional sermon picturing the poverty of the people and their salvation through the establishment of cotton mills, its first mill was organized the next day. The same thing happened at Clinton, S. C., and thus the efforts continued in numerous places. Employment, food, education, better homes and better living conditions for a better society was the answer to the challenge of the mill.

Gerald W. Johnson, distinguished editor, writer, publisher and a native North Carolinian, in reviewing these early days said, "The student of the origin of textile manufacturing in the South is usually dumbfounded by the disregard of rudimentary business principles displayed by the early entrepreneurs. Aspiring hamlets built cotton mills without any sort of investigation into the locality for textile manufacturing. Only in rare instances was the "enterprise headed by a man of any experience in business." An influential man who could commandeer money and confidence was all that was needed—so it seemed.

"This procedure," he continued, "is as inexplicable as the ravings of the wildest Bedlamite until one remembers the spirit in which the whole venture was conceived, but then it becomes understandable, if not logical.

"This was not a business, but a social enterprise. Any profit that might accrue to the originators of the mill was but incidental; the main thing was the salvation of the decaying community and especially the poor whites, who were in danger of being submerged altogether. . . . People were urged to take stock in the mills for the Town's sake, for the poor people's sake, literally for God's sake."

"There was talk of profit in connection with the founding of the mills, but in those early years it never became the dominant motif. Always it was the prospect of civic and social salvation that was stressed"

Even today, nearly everyone remembers or knows something of the late Fuller E. Callaway, who founded the Callaway Mills on the idea, that "at LaGrange, Ga., the Callaway Mills would manufacture textiles in order to build people." A visit to his plants and to hundreds of others will prove conclusively that though conditions and

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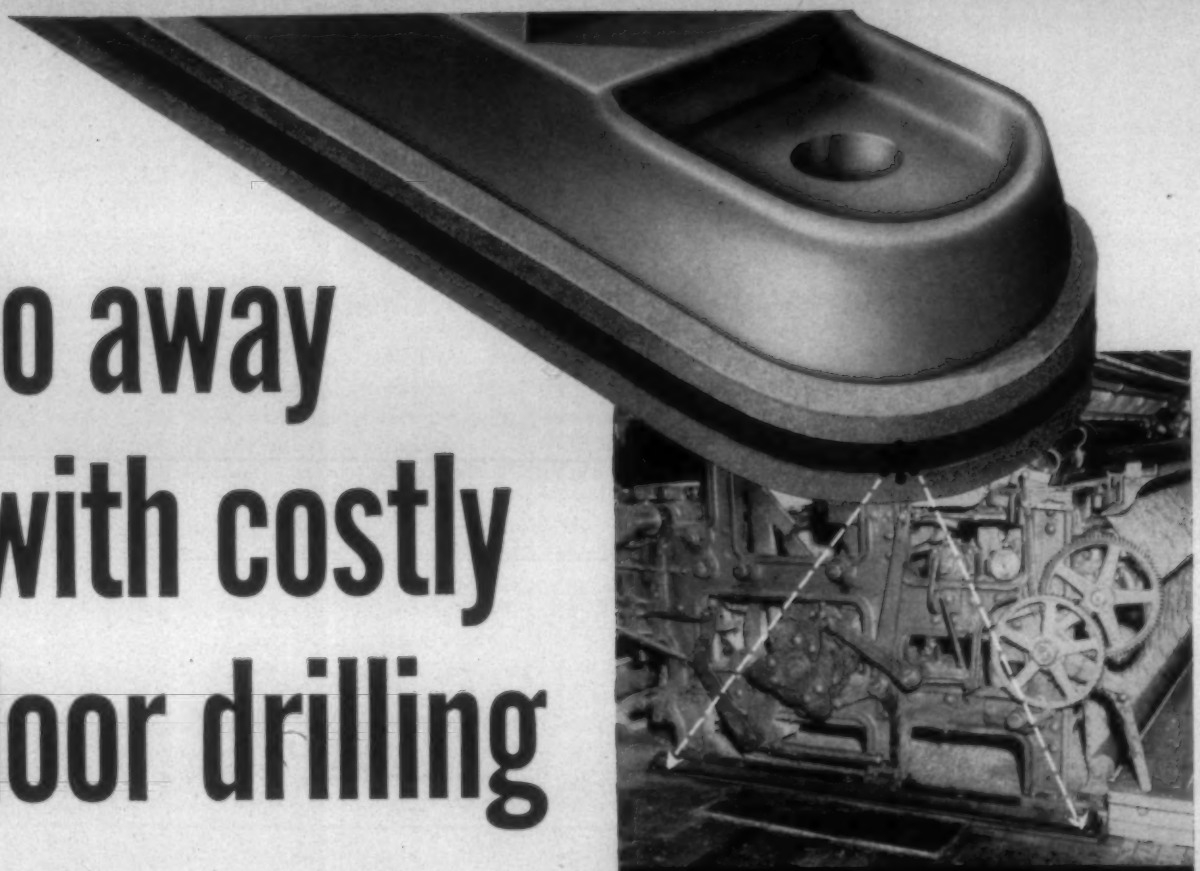

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circumstances have changed, the early philosophy of the founding fathers has never changed. The Southern farmers have a home market for their fabulous crop; hundreds of thousands of people who needed work and wanted work have been provided jobs; better homes, better living conditions, better education, better moral atmosphere in which to rear families, these and many more advantages have been the products of these humble origins of a now rapidly growing industry which also has acted as a pacemaker for other industries to come South or to develop here. Thus we now have a social order rapidly being balanced between raw products and manufactured products.

This great industry has attained its phenomenal growth with its economic and social contributions in spite of adversity, criticism of its practices, opposition to the industrialization of the South. This criticism and opposition have come from the North, from certain social philosophies in the South, from pulpit and press, cracker box orators and professional reformers. And yet this industry has stumbled on following its vision until today the press and the public praise its accomplishments, its leaders and its employees.

Nearly all ideas of progress originate in adversity and fight their way into reality through criticism and adversity. There is no easy road to success. The martyrs of the past are signboards pointing to better living.

These early mills were handicapped by lack of money and experienced men. The only power available was water power or some inefficient steam power. Steam power was then not of sufficient quality and quantity to be desirable. The mills had to be located on streams or canals. There were no houses for the workmen, hence the absolute necessity for a mill village in which to house them. There were no good roads, busses or easy transportation. The people had to have food, hence the store; churches and schools originated for the same reason. There had to be order in the society.

These early days were days of necessary paternalism which soon passed into welfare work and later into cooperative relations. Economic and social conditions are above reproach. The fact that the textile industry is a family industry, and people on the outside could not understand the social conditions of industrial life, there arose a criticism which lasted much longer than there was any cause for it.

These days were many years ago and represent an industrial condition now that has largely been outmoded. Even as undesirable as it was and as much criticized as management has been, no one has been able to suggest a better plan that might have been used instead of it. It was an attempted answer that came from a social and economic demand resulting from the industrial idea operating in a depleted agricultural area. It was a beginning which pushed its ponderous problems along with economic and social progress until today we find textile mill employees living in better homes, enjoying better working conditions and with more financial income than many of the older textile mill executives had for a long time. There is an old slogan: "It is not so important as to where you are today as to where you are going and whether or not you are making progress."

The textile mill executives in the early days set up their objective—an industrialized South in so far as textiles are concerned, more and better jobs for more and better people. The answer needs no comment. The objectives were never lost. They may not as yet have been fully attained but the industry has made great progress. The accomplishments of these early aims and desires are evident everywhere.

The wheels of progress have not outdistanced this industrial giant. I am inclined to let it lead the industrial progress parade. This new generation must not feel that the industry is now full grown, that it is good enough to be held in status quo. Success is only a station on the road called progress and there are other stations that need to be reached—even passed. There were once persecutions because of poverty, there are now persecutions because of success. As long as the philosophy, on which this industry was formed, and has brought it to its present glory, remains its heart and center, there are no dangers. Changing conditions may necessitate changed methods but nothing must happen to change the motive force.

The Creator of the universe is the

same today as yesterday; but to many, He seems different. Diseases today are the same as in all ages, but we have more knowledge of them and better treatment. There is something new every day which may demand a change in method but not of objective.

No one should look back over the history of the textile industry with any kind of feeling except pride and admiration. Those struggling days were hard for everyone but the leaders conquered all opposition, criticism and adversity and thus blessed the Southland for more than can be listed.

I have thought it might be a fine idea if at some future time, some devoted and patriotic group of people would establish, in a central Southern city, a "Hall of Fame" in which could be hung impressive portraits of men who have distinguished themselves and their industry; in which could be compiled a great textile library and museum pieces of patterns of product; the evolution of the machines; the evolution of the mill and its people. This would be a heavy task but it would immortalize the leaders of the South's great textile industry and give an abiding feeling of pride and splendor to the thousands who would visit it and avail themselves of its inspiration and information.

The textile industry is as full of romance, tragedy, comedy and emotional inspiration as any masterpiece of literature that has ever been written. Long live the pride of the South—the textile industry with its myriad of beautiful products of service and satisfaction which have blessed all mankind.

American living standards have risen to such a high state that most everyone has to do business with the finance company.—*Lexington* (Ky.) *Leader.*

According to Sidney H. Wood of the British Administration of Education, a man can reasonably claim to be educated if he can answer these three questions in the affirmative: Can you entertain a new idea? Can you entertain another person? Can you entertain yourself?—*Joplin* (Mo.) *Globe.*

We don't know what history will say of Mr. Truman, but physics says you can't make something out of nothing.—*Greenville* (S. C.) *News.*

Parenthood is a job on which you had better be able to earn while you learn.—*Dallas* (Tex.) *Morning News.*

More Extensive Training

THE matter of training in an industrial plant is of great importance, both from an efficiency and cost standpoint. When we speak of efficiency, we refer to quality of production as well as quantity of production.

Many times the word training is construed as giving new employees proper instructions and informing him or her as to the best means of operating his or her job. This phase of training is very important, and certainly no new employee should be put on the job unless he or she is thoroughly instructed as to what should be done to perform that job efficiently and safely. Naturally, it is the function of the supervisors to see that this is accomplished. The initial training within itself is not adequate, as supervision should follow through to see that the jobs are performed in a proper manner.

In many cases the preliminary training can be supplemented by other types of instruction and training through vocational classes and special testing.

As stated above, this is one type of training which is generally thought of but by no means completes a training program in an efficient organization.

As new equipment and processes are developed and as more know-how is obtained with existing equipment and processes, it is equally important that the older employees be given the opportunity to learn and be trained in the best methods. This phase of training is most frequently overlooked and yet, the over-all operations in the plant can suffer because it is overlooked.

There are many ways in which a piece of machinery can be operated or fixed, and most of them may in the end be satisfactory from a standpoint of accomplishing certain purposes. Of the many ways that such jobs can be done, however, there are some preferable ways. In a well-operated plant, all employees should be given the opportunity to learn the best ways of performing their tasks. At times this may mean that the people who have been performing their jobs for many years can benefit by being shown in a practical way improved methods. Certainly such employees should not resent being afforded the opportunity to do their jobs the best way for in the long run both they and the organization benefit.

Much can be learned in connection with the effects of improved methods by examination of percentage of productive efficiency with quality of the output.

No type of organization lends itself to more improvement through more thorough and adequate training than textile plants. The quality demands of the trade and the prices of fabrics in the existing market seem to call for the introduction of better and more advanced training methods. A cooperative attitude between the plants and their employees and supervisors can accomplish a great deal.—*The Textorian,* Cone Mills Corp.

Union Shop By Decree?

THE recommendation has been made by an emergency board that the railroads enter into an agreement with 17 unions representing a large number of "non-operating" railworkers that the union shop be set up together with the check-off system.

This means that if the proposal is accepted the workers will have to join the union of their craft or give up their jobs in 60 days after the agreement is made. It also means that the railroads would have to deduct union dues from the workers' wages and pay them over to the unions.

The difference between this, which is the "union shop," and the "closed shop" is that in the former the worker must join the union after he is employed and in the latter he must join it on being employed.

The board thinks that the railroad workers should "be compelled to join and share the expense and responsibilities of their activities." The railroads disagree.

The issue is important because the recommendation may be an opening wedge for the "union shop" in all industry, especially if it presages new government policy.

The board which made this recommendation is not a government agency but a creature of the government. It has no power to make policy, but it might foreshadow it. It can only recommend, but recommendations of such boards have been habitually accepted by the railroads in the past.

Considering these implications, should the recommendation be adopted? We think not. Men ought to be free to join or not join a union, as they see fit. The government ought not to attempt to force on unions unwilling members. That clause in the Declaration of Independence, "life, liberty and the pursuit of happiness," includes the right to work for a living regardless of whether a man joins a union or not. The government shouldn't penalize him for exercising that right. — *Greensboro* (N. C.) *Daily News.*

Join Some Minority

THE purpose of this proposed F.E.P.C. law is to punish those who discriminate against applicants for jobs on account of race, color, religion, or foreign origin.

When this law has been enacted (if it ever is) you had better make quick arrangements to identify yourself with some racial, religious, or national minority. Then you will have a far better chance to get the job you desire. But if you happen to belong to any kind of majority, you will have almost no chance at all.

If you as the member of one of these minorities ask for a job and fail to get it, you can file charges of discrimination against the employer who has turned you down. But if you happen to belong to the majority, you will have no recourse if you fail to get employment. The proposed law is not designed to help the majority.

And bear in mind that the prospective employer is not going to forget what may happen if he fails to give a job to some minority representative. He knows that he will have to face some kind of legal proceeding. He may be fined or he may go to jail. But the employer further knows that he can deny jobs to all the members of the great majority and no danger of punishment will be incurred.

If you ask for a job that some minority brother is asking for, you will be out of luck. You won't have even the proverbial Chinaman's chance. For you will find that the employer's first thought is to stay out of court and perhaps out of jail. He will understand well enough that he may be prosecuted if he gives to you the job instead of to your minority brother.

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proposed F.E.P.C. act will be to give minority workers a first mortgage on every job in America. At the same time it will place every majority worker in the country on a quasi blacklist. If you belong to the great majority, you will not get any kind of job until every minority member on the lot has been given employment. You will take what is left. If you obtain any job at all, it will be one that no minority representative wants.

So if this F.E.P.C. proposal becomes a law, the first thing you will need will be some minority connection. If you remain with the majority, you will be lost in the job seeking shuffle. As a majority worker you will have to overcome the sales resistance of some timid employer with some federal marshal standing by to rush him off to the hoosegow if he dares to give you the employment you seek. So you had better hurry up and get you a minority status and freeze to that status like a lean tick to a mountaineer's shin.

For the mid-century war cry of our political leaders is, "Let the minorities rule."—*Daily Oklahoman,* Oklahoma City.

New Fabrics—You Call 'Em

AS ONE who long had been wool-gathered about the myriad materials that comprise milady's wardrobe, we have been accutely aware of this defect and have steadfastly striven to overcome it.

Our purpose in boning up on this subject was to end the monopoly the women folk had enjoyed in the entire field of textile appreciation. Too often had we stood by, helpless with a fatuous leer on our face, as the ladies chatted on and on in such unfamiliar terms as faille and chambray and dimity and shantung.

But after months of sedulous study in fabric detection, we had acquired a tol'able lingo of our own, and could even toss off an occasional alpaca or moire ourselves in a pinch. We were even beginning to fancy ourselves as authorities on the old established fabrics. We had learned that tweed was not a political boss, that calico was not the symbol of an oil company, that marquisette was no French noblewoman and that taffeta was not a kind of pulled candy.

Imagine, then, our feelings when we saw this devastating item from the pen of Ann Audubon: "A whole new fabric vocabulary has opened up in synthetics. Manufacturers are using innumerable combinations of dacron, dynel, orlon, acrilan, and vicara with other fabrics."

That does it. We have thrown in the sponge. Let the women have their closed corporation and overload their vocabulary with every fabric they wish. It is immaterial to us.—*Times-Picayune,* New Orleans, La.

New England's Vexation

NEW ENGLAND is on the defensive. The South irritates it. The South's great industrial rise, and particularly the transfer of many Eastern textile mills to the Piedmont, has annoyed New England sorely. People prefer to blame their misfortunes on others rather than themselves, so the South is generally accused of being unfair, and robbing poor old New England blind.

A New England paper has gone so

far as to editorialize on a young couple who spent their honeymoon on the Georgia coast. They had an accident in Darien, and according to the editorial were treated shabbily. The bride's rings disappeared at their hotel, and the paper claims they were stolen. It urged its readers to stay out of the South.

New England had its own way, financially and intellectually, for a long time. Even the history books we Southerners studied had a Puritan slant. When we were the underdog we took the same dim view of New England that New England takes of us now. We can understand its point of view, though we find it hard to sympathize.

A Boston paper, trying to explain this startling reversal of sectional form, blames it partly on "sugar and sweet talk." It may have something there. New England might even try it—*Atlanta* (Ga.) *Journal.*

The South's Spirit

INDUSTRIALISTS, publicists and politicians in New England and other Eastern and Northern regions have had much to say about lower wages, free sites and taxation advantages as means used to draw mills and factories to the South. But Jack Barry, director of personnel for the American Woolen Co., told a Chamber of Commerce meeting at Plymouth, Mass., that "the South has no secret weapon except its spirit."

We don't agree with this textile official's further statement that there are no natural advantages in Southern locations that are impossible for New England to meet and match. On account of climatic conditions in the South there are lower fuel and lighting costs for the people who work in mills and many regions have abundant natural gas for industrial use or comparatively cheap electric power.

But the South should thank this New Englander for his tribute to the South's spirit. It should give this great region of America new inspiration and new confidence.—*Arkansas Gazette,* Little Rock.

A cobbler in New York City is sending Cousin Harry a pair of homemade lounging slippers. There's one fellow who believes every word of the retirement talk.—*Commercial Appeal,* Memphis, Tenn.

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Truman's grip on party control and his political influence are being shattered by the reverses which his close adherents are meeting with in primaries and conventions. Democratic candidates are standing aloof, and claiming no part in his Fair Deal. He is not being encouraged to make "whistle stop" trips, and some candidates are prayerful that he doesn't.

Stevenson's major problem is to demonstrate he is independent of the whole A.D.A. group and its Socialistic allies. His choice of Wilson Wyatt as campaign manager is a step in the opposite direction; Wyatt has been a favored radical aligned with the New-Fair Deal.

Nixon contends Stevenson is tied to C.I.O., whether he wants to be or not. The evidence points to him owing little or nothing to C.I.O., but it remains for him to demonstrate his independence.

Republican leaders would like to see Steveneson turn to the left, and court the favor of radical groups. They believe if he tries to conciliate A.D.A., C.I.O., the union bosses, the Negro pressure groups and other radical fringes, he will alienate the Southern voters, and some of these states will turn up in the Eisenhower column in November

Democratic leaders feel, however, that Eisenhower is going to have to turn sharply to the left, too. They claim he cannot win the Northern states unless he gets the "balance of power" votes of pressure groups adhering to the A.D.A. line. They say he must clean sweep in the North unless he carries several Southern states.

Under pressure of A.D.A., Stevenson has a man-sized job to pull together the coercive "liberal" elements in the North and the bitterly antagonistic Southerners. C.I.O. is deeply interwoven in the "civil rights" issue, and has forced it on Northern industry. The South will not accept union bossism. In the North the unions are moving to ram their views down the throats of their own members, and make a dictated vote the price of a job and the right to work.

The issue is fast becoming one of whether C.I.O. is going to dictate to the next President as it has to Truman, and use government as a side arm. Murray's power in this regime has exceeded that of any other citizen. When he turned thumbs down on a new law, it invariably met with a veto. He has sought to establish compulsory unionism in the form of the "maintenance of membership" pattern of World War II.

Taft adherents are moving slowly to forget what they call the "effort to destroy him" by taking away delegates through changes in convention rules. They emphasize that "he was robbed," and that a concept of common political morality is involved. There may be trouble again in getting them to the polls, as in '48 when they saw little difference between pot and kettle.

Eisenhower managers are not expected to try to use Taft very much as a campaign speaker. Observers say he would probably meet with tremendous demonstrations, his popularity would soar, and the net result would accentuate the

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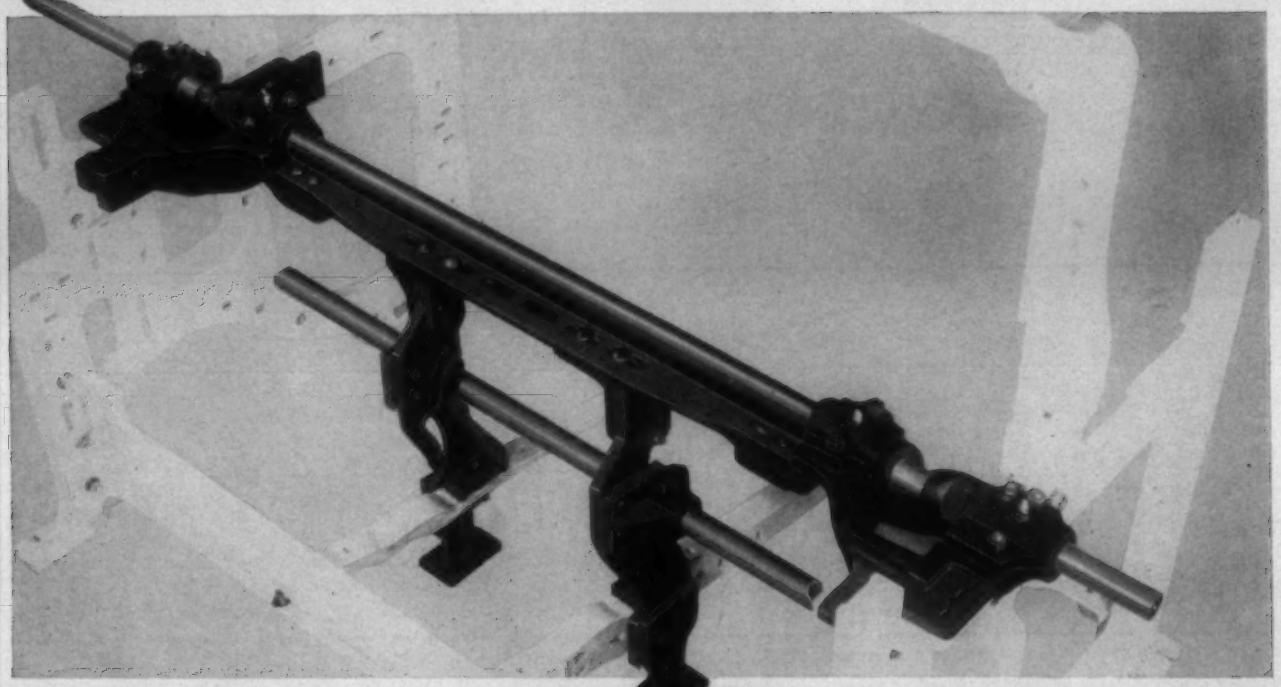

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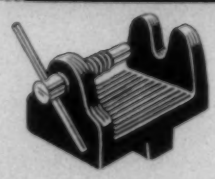

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party split. They say that in Ohio in 1950 he gave the party, with his majority of 431,000, its first big victory since 1928, and that no other Republican in 24 years has rolled up such a stupendous result.

No one in any segment contends that the platforms of both parties are not distasteful to the South. Soft words and innuendos were used in lieu of F.E.P.C. and "civil rights." Northern Socialists are constructing both planks to mean F.E.P.C., and limitation on Senate debate by actual majority of those present. Whatever may be said in soft words, the Senate will head into a bitter fight, and possibly filibuster, on both issues as soon as it reconvenes.

Primary objective of the union leaders this Fall is to lay a basis for gaining repeal of the Taft-Hartley Law. It is a stern impediment to the union shop, and gives rights to the individual worker, and frees him from coercion and domination.

A federal statute requiring names of all presidential nominees to appear on ballots in all states is under study by the Senate Rules Committee. The main purpose is to restrict the powers of state committees, obviate the need for "loyalty" pledges in conventions, and fix claim to national party labels. Republicans can see it as a means of setting up a two-party system in each state by law.

"Young Turks" aligned with A.D.A. will continue their efforts to keep a tight grip on the Northern element of Democrats. Nearly all of them are of Socialistic derivation. They hope to gain strength through "balance of power" votes in November, renew their fight for a change in Senate rules, and to bar "loyalty" pledges by federal workers. They have screamed in anguish at each proposal that a federal employee swear he is not a Communist.

Aim of the A.D.A. group in Chicago was to split the party wide open by driving out the Southerners. They would then have been in a position to seize the Northern wing and turn it into a pure English-type labor party. A.D.A. has been built up as a holding company for all of the Socialist, radical and fringe groups which Roosevelt drew into the party, and some Red groups, too, and is reaching now for supreme control.

Leaders of A.D.A. have drawn their pattern of operation from the outcome of the election of 1948. Many Republicans stayed at home, and Truman won without benefit of the South. A.D.A. leaders believe they can throw out the Southerners entirely, set up a radical Socialist-Democratic party in the North, and win national elections without the South. They propose to intensify class consciousness, and make labor more a political instrument than an agency for orderly collective bargaining.

The battle to modify immigration laws, and break down quota barriers, will be renewed in the next Congress. The driving force behind it will be A.D.A. House membership is limited to 435, and members from a state increase or decrease with shifts in population. Increases in population of Northern cities through immigration would entitle their states to more House members, which would be taken from states without population increases.

Expectation is that there will be a prolonged filibuster over rules changes when the Senate attempts to organize in January. The A.D.A. group wants cloiture invoked by a mere majority vote of those present and voting. Others demand the constitutional two-thirds majority of 64, and others are opposed to any change in the rules. The outcome hinges on who is elected to the Senate in November.

Amendments to the Taft-Hartley Law, tantamount to repeal, are certain to be thrust forward in the new Congress. C.I.O. does not expect to gain repeal,

but it does hope to put through crippling amendments. C.I.O. dislikes the law because it lays down an orderly pattern for industrial relations, and also raises a bulwark against gradual seizure and socialization of industry.

Immediately after the election, C.I.O. expects to put forward a plan for co-determination of industrial policy by workers and management. The plan is drawn from the new Western Germany statute which gives labor a precise share in the management of industry. The C.I.O. plan would also bring in government, farmers, consumers, and presumably such "democratic" groups as A.D.A., to have a voice in such policy.

The steel strike was the costliest of its kind in the country's history, and showed government meddling and bureaucratic bungling at its worst. Heaviest losers are national defense and the public, including workers in other industries made idle by need for steel.

Sole cause for the long bitter controversy was for a union shop after other difficulties had been ironed out. The strike arose in a W.S.B. effort to ram the union shop down the throats of mill owners, followed by plant seizures when they refused. Decisions of Judge Pine and the Supreme Court broke up the move to get it by government fiat.

In the long and costly duration of the strike, Philip Murray is revealed as the undisputed boss of government and of the Fair Deal. He forced the move not to use the Taft-Hartley Law, and to employ government as a club in bludgeoning steel management.

Outcome of the strike is a tremendous loss to the unions in their objective to gain more power over individual workers. Steel sets a pattern for wage pacts in other industries, and a complete union victory would have been passed along in similar demands on virtually all basic industry.

The new W.S.B. is going through a painful process in trying to organize as it succeeds the old board that was spanked to death by Congress. Pro-labor partisanship is still dominant. New members can only hold office until the Senate confirms or rejects them in January. There is no indication of a new objectivity, or that performance is going to be very different or more in the national interest.

With only a few turning of screws here and there, the new W.S.B. will function in the pattern of the old board. Feinsinger is gone, but most of his fellow members have been reappointed, and nearly all old employees are retained. Partiality to labor is still evident and dominant, and power to indirectly reach into labor and wage disputes, and influence their outcome, is very great.

Under the new law, W.S.B. can recommend general wage policies to the Economic Stabilizer, and advise as to interpretation of issues. Where without jurisdiction of its own, W.S.B. can advise the Economic Stabilizer on the widest possible scope, with assurance its advice will be heeded.

The Stabilization Board, with all of its little regional and satellite agencies, is substantially unchanged. None of its officials are subject to Senate confirmation. Its authority covers compensation of persons not included in union representation. Senator Ives (R., N. Y.) says jurisdiction of W.S.B. over professional and salaried employees is unchanged by the new law.

Emphasis on wage negotiations for the next year will be to gain higher pensions and the abolition of forced retirement for age. Unions will try to push up industrial pensions to $200 a month, with added employer-paid hospitalization, health insurance and vacation allowances. An effort will be made to raise the retirement age to 68 years, unless earlier sought voluntarily by the employee.

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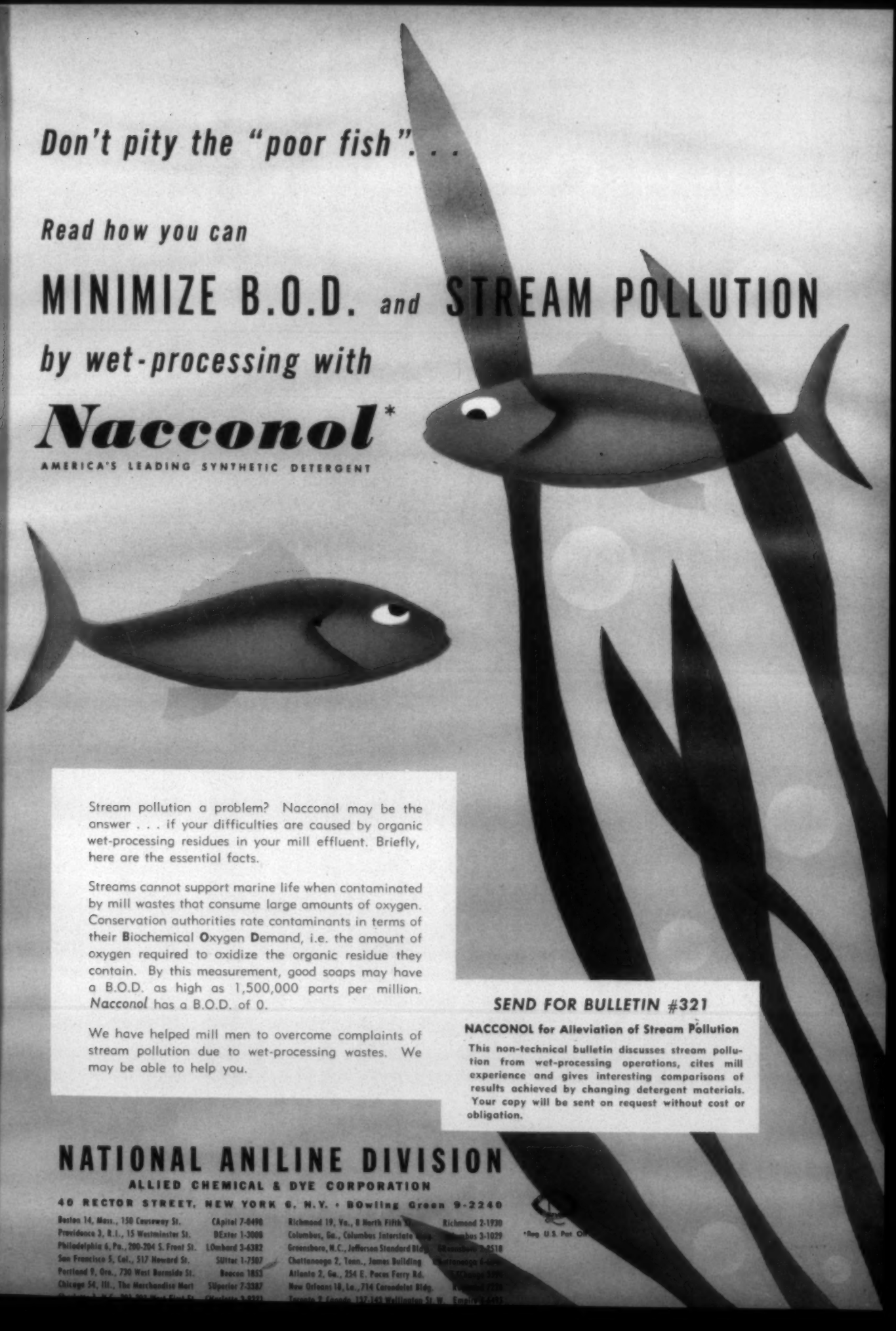
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Nacconol*
AMERICA'S LEADING SYNTHETIC DETERGENT
Stream pollution a problem? Nacconol may be the answer . . . if your difficulties are caused by organic wet-processing residues in your mill effluent. Briefly, here are the essential facts.
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We have helped mill men to overcome complaints of stream pollution due to wet-processing wastes. We may be able to help you.
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NACCONOL for Alleviation of Stream Pollution
This non-technical bulletin discusses stream pollution from wet-processing operations, cites mill experience and gives interesting comparisons of results achieved by changing detergent materials. Your copy will be sent on request without cost or obligation.
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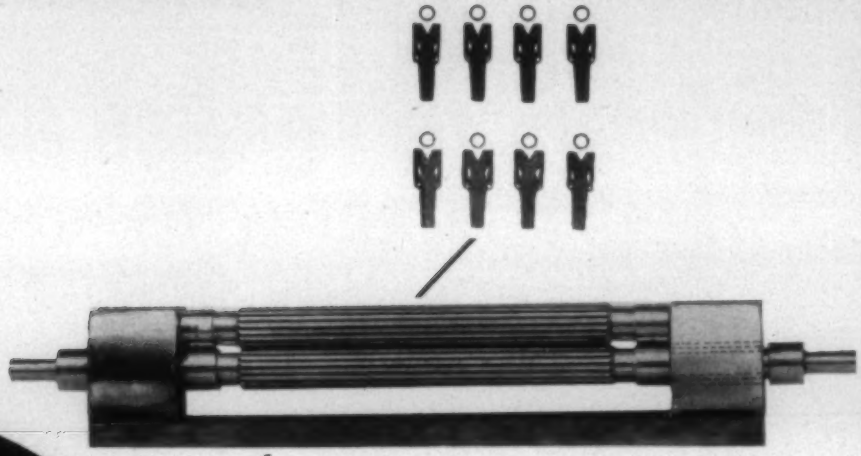

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textile bulletin

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As Others See Us

The May issue of *Ladies' Home Journal* carried an unusual story. It was unusual in that it was a rare example of a national consumer magazine publishing a story concerning a Southern cotton mill and putting the mill in a very favorable light.

The story was not devoted exclusively to the mill, but was principally about David Stallings, an employee of the Henderson (N. C.) Cotton Mills, and his family. The article, entitled "A Right Happy Place," described his home and his employment in the mill. We congratulate the *Ladies' Home Journal* upon its originality in publishing a favorable story about Southern textiles.

Writers who have been sent to describe cotton mills in the South usually hunt for unfavorable conditions and in most cases express ideas they held before visiting the South. In fact, most of them could have written their stories without ever leaving their offices.

No section of the country and no industry has ever been as falsely accused as the South and its textile mills. We do not contend that conditions in the textile industry have always been uniformly good, but in nearly every case writers have hunted for the bad spots and portrayed them as standard.

It is also true that in most cases the writers could have gone ten blocks from their metropolitan offices and found some tenement sections in which conditions were far worse than those they ferreted out in the textile communities of the South.

By way of contrast with the recent *Journal* article, we would like to call attention to another kind of piece which appeared in an obviously union-nurtured, ultra-liberal periodical published at 220 East 42nd Street, New York City. Its editor is a character by name of Max Ascoli who, as we understand it, is the prince consort to a lady of means, who in turn is willing to subsidize her husband's efforts in the publishing world. At any rate, Editor Ascoli has presented his claimed 25,000 subscribers with an article which is so patently biased on the labor union side that anyone familiar with the Southern textile industry could shoot as many holes in it as there are caverns in Virginia. It isn't worth reading, and isn't worth any further comment than to guess that the writer left the office on 42nd Street, got on the subway, went to 99 University Place in New York to get his information. This latter address is the headquarters of the C.I.O. Textile Workers Union of America.

He Beat Truman, C. I. O. And A. F. L.

Gov. Sid McMath, of Arkansas, who has been one of the most active of the lickers of Truman's boots, ran for re-nomination this month. In July Truman made a trip to Arkansas and urged that McMath be re-nominated and McMath also received the endorsement of the C.I.O. and the A.F.L.

We have not seen the first tally but unofficial reports from 2,040 of the state's 2,286 boxes gave Cherry 190,542 to 110,675 for McMath. Governor McMath, with the backing of Harry Truman, the C.I.O. and the A.F.L., lost by more than 80,000 votes when he sought to ride on the coattails of Harry Truman and to be paid for favoritism to labor union leaders.

Crops And Politics

We had occasion Aug. 8 to watch the ticker tape when the first cotton crop forecast of the year was released by the Crop Reporting Board of the United States Department of Agriculture. The official estimate was 14,735,000 bales.

Somehow, we can't quite believe this figure, although we are not by any means agricultural experts. Prior to release of the official U.S.D.A. estimate, six private forecasts were announced. The lowest was 14,812,000 bales, the highest 16,504,000. After the government figure came out, widespread disbelief in its accuracy was expressed by the cotton trade.

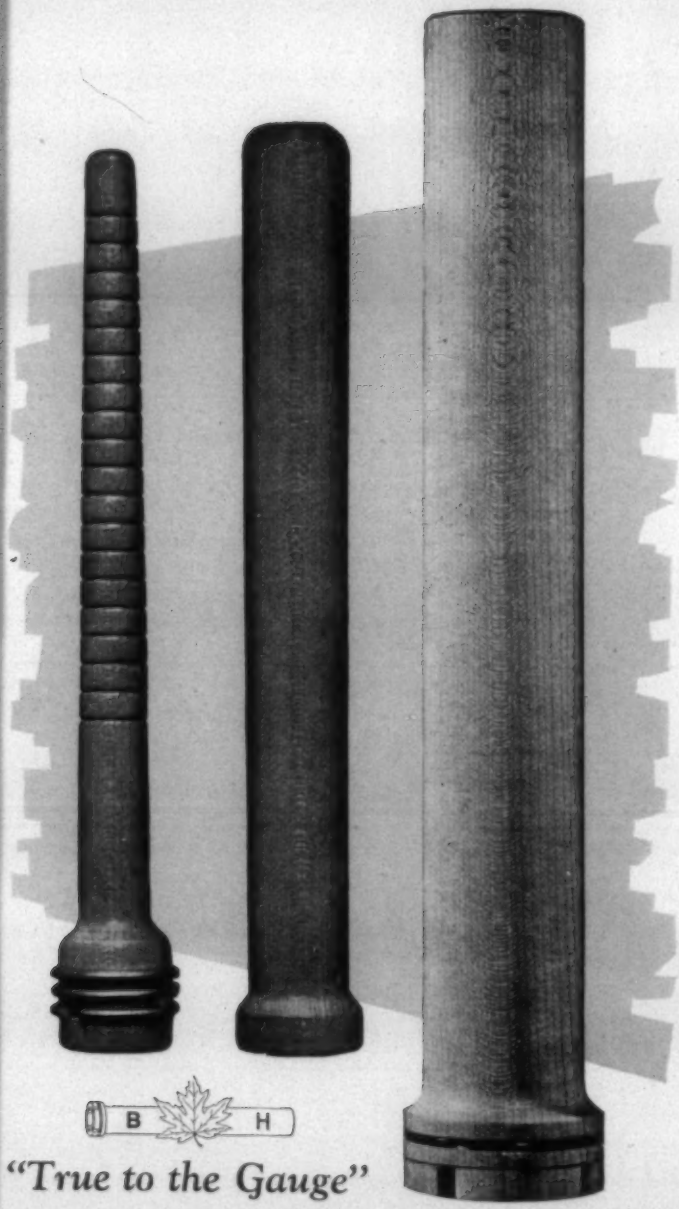
Admittedly, the Crop Reporting Board was conservative this year because of missing the mark so badly this time last year; further, the government figure was based on conditions as of July 31, before there had been any relief from the drought.

We wonder, however, just how much effect the drought had on the cotton crop. We have seen corn down in the fields, but the cotton we have observed looks all right. Reports from the Delta, Texas and California indicate that crops in those areas are in good shape.

We have reservations, too, about the drought. As best we can remember nothing was said by Federal Government officials about the drought until the week of July 28. If the drought is so serious, why wasn't some alarm expressed about it before that date?

If you can believe the Department of Agriculture when it states that New England is hardest hit by the drought, why were only two of the New England states declared "disaster areas" and nearly all of the Southern states listed as "disaster areas." Why did the Agriculture Department

TODAY, as in past years . . .



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state on Aug. 11 that production of all crops this year will be the third largest in the nation's history?

You really do not know who to believe, and we wonder if there is any ground for suspicion that the Agriculture Department is playing politics. Low-interest loans to drought-hit farmers in New England will not help the Democratic Party much in November, since New England is expected to travel its usual Republican route. But spreading a lot of cheap money around the South prior to election might alleviate the threat of some Southern states ending up in the Republican camp.

TEXTILE INDUSTRY SCHEDULE

— 1952 —

Sept. 10-11—Fall meeting, the **FIBER SOCIETY**, Princeton, N. J.

Sept. 10-12—**SOUTHEASTERN PERSONNEL CONFERENCE**, Duke University, Durham, N. C.

Sept. 13—**PIEDMONT SECTION, A.A.T.C.C.**, Charlotte (N. C.) Hotel.

Sept. 13—**SOUTHEASTERN SECTION, A.A.T.C.C.**, Biltmore Hotel, Atlanta, Ga.

Sept. 29-Oct. 1—**A.M.A. CONFERENCE ON PERSONNEL**, Hotel Astor, New York City.

Oct. 3—**TEXTILE QUALITY CONTROL ASSOCIATION**, Raleigh, N. C.

Oct. 6-11—**SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

Oct. 16-17—Annual meeting, **NORTH CAROLINA COTTON MANUFACTURERS ASSOCIATION**, The Carolina, Pinehurst, N. C.

Oct. 16-17—**A.M.A. CONFERENCE ON OFFICE MANAGEMENT**, Hotel New Yorker, New York City.

Oct. 20-24—**NATIONAL SAFETY CONGRESS AND EXPOSITION**, Conrad Hilton, Congress, Morrison and Sheraton Hotels, Chicago, Ill.

Nov. 6-8—**AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS TEXTILE DYEING AND FINISHING EXHIBIT, AND NATIONAL CONVENTION**, Statler Hotel, Boston, Mass.

Nov. 13-14—**A.M.A. CONFERENCE ON INSURANCE**, Drake Hotel, Chicago, Ill.

Nov. 15-21—Annual meetings (as part of a six-day cruise to Bermuda from Norfolk, Va.), **CARDED YARN ASSOCIATION** and **SOUTHERN COMBED YARN SPINNERS ASSOCIATION.**

Nov. 17-18—Annual meeting, **TEXTILE RESEARCH INSTITUTE**, Hotel Commodore, New York City.

Nov. 19-21—**A.M.A. CONFERENCE ON FINANCE**, Hotel Roosevelt, New York City.

Nov. 25—**A.S.T.M. COMMITTEE E-11 ON QUALITY CONTROL OF MATERIALS**, Philadelphia, Pa.

Dec. 1-6—**NATIONAL EXPOSITION OF POWER AND MECHANICAL ENGINEERING**, Grand Central Palace, New York City.

Dec. 3-5—**A.M.A. CONFERENCE ON MANUFACTURING**, Hotel Statler, Cleveland, Ohio.

Dec. 6—**SOUTH CENTRAL SECTION, A.A.T.C.C.**, Hotel Patten, Chattanooga, Tenn.

— 1953 —

Jan. 19-22—**PLANT MAINTENANCE SHOW**, Cleveland (Ohio) Auditorium.

Feb. 9-11—**A.M.A. CONFERENCE ON MARKETING**, Hotel Statler, New York City.

Feb. 16-18—**A.M.A. CONFERENCE ON PERSONNEL**, Palmer House, Chicago, Ill.

Feb. 18-20—**COTTON RESEARCH CLINIC**, General Oglethorpe Hotel, Savannah, Ga.

March 2-6—**A.S.T.M. SPRING MEETING AND COMMITTEE WEEK**, Detroit, Mich.

March 26-28—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Palm Beach Biltmore Hotel, Palm Beach, Fla.

April 8-10—**A.M.A. CONFERENCE ON MANUFACTURING**, Hotel Statler, New York City.

April 26-27—**A.M.A. PACKAGING CONFERENCE AND EXPOSITION**, Navy Pier, Chicago, Ill.

May 14-16—Annual outing, **CAROLINA YARN ASSOCIATION**, The Carolina, Pinehurst, N. C.

May 18-20—**A.M.A. CONFERENCE ON INSURANCE**, Hotel Statler, New York City.

June 17-19—**AMERICAN MANAGEMENT ASSOCIATION CONFERENCE ON GENERAL MANAGEMENT**, Hotel Statler, New York City.

June 18-20—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Mayview Manor, Blowing Rock, N. C.

June 29-July 3—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Chalfonte-Haddon Hall, Atlantic City, N. J.

July 26-31—**INTERNATIONAL EXPOSITION OF FABRICS, FIBERS, FINISHES AND YARNS**, Waldorf-Astoria Hotel, New York City.

Sept. 17-19—Annual national convention, **A.A.T.C.C.**, Conrad Hilton Hotel, Chicago, Ill.

— 1954 —

April 26-May 1—**AMERICAN TEXTILE MACHINERY EXHIBITION**, Atlantic City (N. J.) Auditorium.

June 10-12—Annual convention, **S.T.A.**, Ocean Forest Hotel, Myrtle Beach, S. C.

Annual convention, **A.A.T.C.C.**, Atlanta, Ga. (Dates not yet selected.)

People Fear Debt

There can be no denial of the fact that when the Democrats nominated Stevenson and Sparkman, they made the way hard for Eisenhower and Nixon.

With Stevenson's ancestors having been residents of North Carolina and still having many family connections there, there is little reason to be confident that any of the Southern states will go Republican.

Had the Democratic convention kicked out the Virginia, South Carolina and Louisiana delegations, Eisenhower and Nixon would have carried every Southern state, but the Fair Dealers realized that after 631 votes or more than enough to throw out Virginia had been cast and there was a great rush to change votes and Virginia was seated.

The campaign of the Democrats will be based on "see what you have gained since 1932."

The campaign of the Republicans should be based on "see what it has cost you."

During the recent Democratic Convention at Chicago, we heard, on television, speaker after speaker prate about what the Democratic Party had done for the people since it came into office in 1932.

We failed to hear a single speaker mention what it had cost the people to obtain what they have obtained.

At the bottom of the opposite page we give some figures which should be used as the basis of the campaign of the Republican Party.

When the Democrats came into power in 1932 the United States owed $19.5 billion, including the cost of World War I. Now this country owes $263 billion and if the Democrats remain in power, that astronomical figure will go much higher. The average citizen has to constantly deal with his own personal indebtedness and knows what it means to be in debt.

We believe that if the figures at the top of the next page are put before him often enough, he will realize what the Democratic Party has done to him and his children, grandchildren and great grandchildren.

The average citizen would like to have a television set, radio, new automobile, deep freeze, washing machine and many other things but knows that if he acquires them, he must assume a large debt and he fears debt.

We believe that his personal fear of debt will make him realize that when the Democrats gave him all these things about which they prate, they placed upon him and all other citizens an astronomical indebtedness, which must sooner or later be paid by increased taxes upon him or his decendents.

We believe that the figures given on the next page should be run as a three-column, two-inch advertisement in all local newspapers at least once a week, and if possible every day until election day. There are many citizens who could afford, as a service to their country, to pay for such an advertisement.

In the average weekly newspaper a three-column, two-inch advertisement would cost $2.50 per issue or a total of about $25 for every week until election day.

If the people ever realize how much debt has been placed upon them by the Democrats, they will cease to consider

United States Indebtedness

1932 —— $19½ Billion
(Includes cost of World War I)

1952 —— $263 Billion

only the advantages they have received. The $19.5 billion which was owed in 1932 included the cost of World War I and it will take more that the cost of World War II to convince the people that the increase to $263 billion is justified and that much of it was not due to wastefulness and corruption.

More About Solicitation By Telephone

In our June issue we called attention to the constantly growing racket of mills being solicited for ads by long distance telephone. We called attention to the fact that by using the telephone the solicitors were able to claim affiliaton with organizations and causes with which they had no connections and could claim a large circulation whereas, if they made the calls in person, they ran the risk of being asked to give proof of both.

In our July issue we told the story of a small knitting mill which, when called by long distance from New York, had refused to authorize an adjustment but, when the solicitor asserted that the mill had given authorization, paid the bill rather than risk a suit.

The conversation relative to the advertising, having been over long distance telephone, the mill had no way to prove that it had refused authorization.

Last month we received a letter from one on North Carolina's largest manufacturers of full-fashioned hosiery, from which we quote the following:

> This morning, I had a call from a safety organization asking for advertising in their next issue. I had been called a number of times by this group; and, on occasions, we have given them small ads. I took the opportunity recently, however, to look over their so-called safety newspaper; and found that it was so poorly printed that it was almost impossible to read, and about the only thing of any consequence in the paper was the advertising section. I decided then and there that we would not continue our advertising program with them. The telephone call gave me the opportunity of telling the gentleman that we would not be in a position to place advertising with them; and I also brought to his attention the points that I

JACK KROLL AND TWO OF HIS C.I.O. BUDDIES—Those who followed the recent Democratic Party convention at Chicago will recognize the name of Jack Kroll as one of the C.I.O. leaders who dominated the proceedings. He was the leader of the C.I.O. group which told Vice-President Alben Barkley that they would not permit him to be nominated for the Presidency. Shown in this picture with Jack Kroll are Thomas Richardson *(left)*, who is a leader of the C.I.O. Public Workers Union, and John Thornton *(right)*, who has been chairman of the C.I.O. cost of living committee.

have mentioned above, so that he could consider it either constructive criticism or whatever he liked.

Later on in the morning, I picked up the July issue of your journal, which I had not heretofore had an opportunity to read, and found your editorial entitled, "Soliciting Ads By Telephone." It was rather a coincidence that what you brought out in this article was almost the same as that expressed by me to the solicitor in our telephone conversation. I, too, feel that so-called publications of this character should submit to the prospective advertiser all the information that you and your good magazine, and others of similar standing, have to do.

Any journal or newspaper, which has any standing whatever, will be pleased to furnish a written statement of the number of copies to be printed and also furnish satisfactory proof of its affiliation with the organization which it professes to serve.

Soliciting advertising by telephone is usually for the purpose of avoiding the demands for proof of statements.

Congratulations To Russell Mfg. Co.

We congratulate the Russell Mfg. Co., of Alexander City, Ala., not only upon the celebration of its 50th anniversary, but also upon the very high plane upon which the business has been conducted during the 50 years and also upon the accomplishments of the Russell family even prior to that time.

In 1902 Benjamin Russell borrowed enough money for the purchase of eight knitting machines for the manufacture of knit underwear. Later he built a small mill to manufacture yarns .

Today the Russell Mfg. Co. has 65,000 spindles, 1,250 looms and the original eight knitting machines has increased to 300. The Russell Mfg. Co. has always been a family affair and when Benjamin Russell died in 1941 the business was carried on, on the same high plane, by his sons.

The story of the Russell Mfg. Co. has been recorded in a beautiful and carefully prefaced booklet which tells a remarkable story of accomplishment.

Could be, we think, that the most agonizing experience is to have to stay through a speech that lasts an hour when the speaker never does get around to saying what he's talking about.—*Commercial Appeal,* Memphis, Tenn.

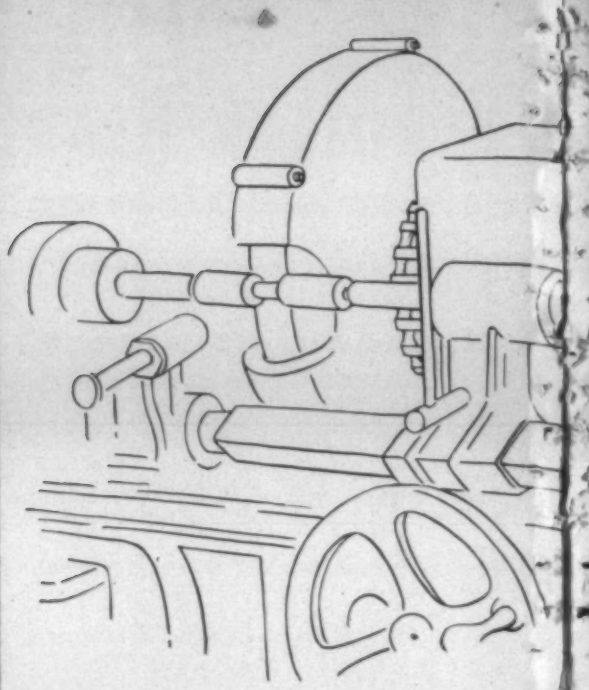
New styles of bait are invented every season and the fishermen are always ready to bite.—*Fort Myers* (Fla.) *News Press.*

The young husband brought his boss home for dinner, only to have his wife greet the guest enthusiastically, "Oh, it's so nice to meet you, Mr. Legree. My husband speaks of you so often."—*Lamar* (Mo.) *Democrat.*

There is one advantage in reading the novel before seeing the film version; it makes it more difficult to guess the plot of the picture.—*Grand Prairie* (Ark.) *Herald.*

Looking over the many new devices of war, a thought is that the hope of the world lies in a new generation that flunks high-school physics en masse.—*The State,* Columbia, S. C.

To get the most out of your ROLL SHOP EQUIPMENT



Call your Armstrong man— he can help

YEARS OF EXPERIENCE have taught Armstrong men the answers to many textile problems. Could you use some help on a roll covering problem? Call your Armstrong man—anytime.

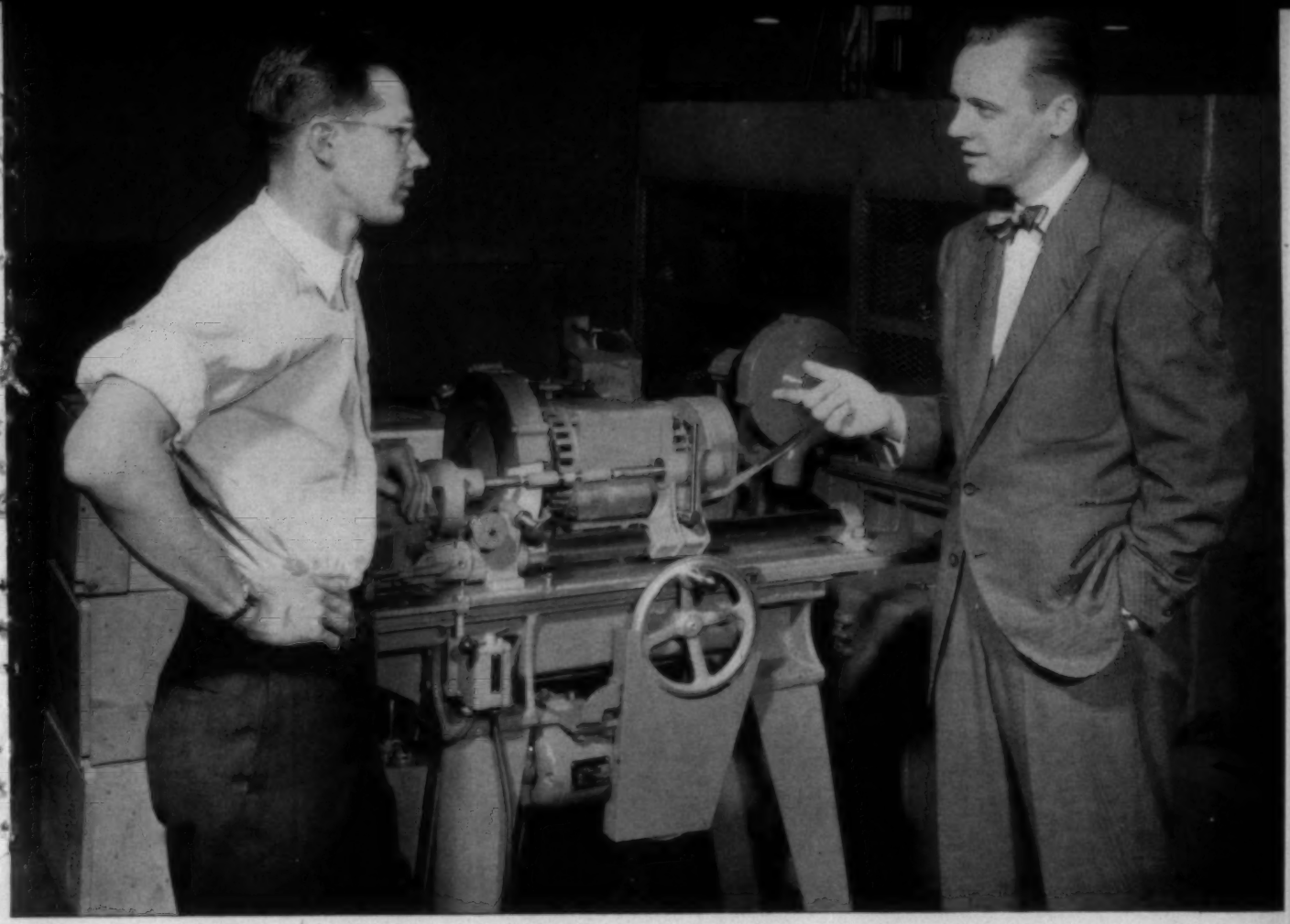
Can you put too high a value on a roll shop that does a consistent, top-notch job? Probably not. For example, a batch of roll covers buffed slightly out of parallel can play hob with your production, as you well know.

That's why you'll find your Armstrong man out in your roll shop on practically every visit he makes. He's there to head off trouble—if he can—before it starts, to give your roll coverers a hand if they happen to need it.

Of course, he can't take your buffing machine apart and reassemble it blindfolded. But he does know most of the quick tricks on its proper use and adjustment.

Another thing your Armstrong man can do, is help you set up a practical rebuffing schedule, one that's geared to your particular operation. His purpose here, of course, is to insure consistent top performance of your Armstrong roll coverings and at the same time to help you avoid excessive buffing that cuts cover life.

ARMSTRONG'S

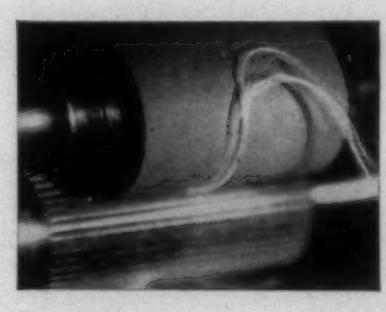


your roll coverer head off trouble

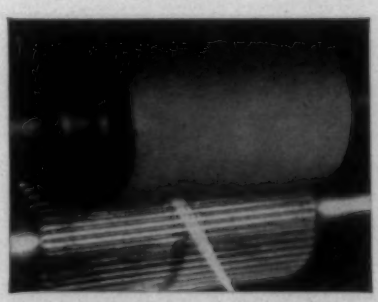
Naturally, you needn't limit your Armstrong representative to roll shop problems. He's equally ready to go over any other roll covering problems, for instance, when you plan a change in your equipment or type of work. And if you should run into roll covering trouble, a telephone call usually will bring him to your mill within 24 hours.

Giving you the right roll covering for the work you're running will be no particular problem. There's an Armstrong's Accotex Cot for every kind of service. They're available in either plain synthetic rubber or in combinations of cork and rubber, each in various amounts of cushion and all with the added "electrolyte" that means maximum lap resistance.

Many mill men call an Armstrong man whenever they think of roll coverings. If you're one who doesn't, perhaps you should start today. Write or call Armstrong Cork Company, Textile Products Dept., 8208 Arch Street, Lancaster, Penna. Available for export.



THIS COT LAPS: Moisture layers on fiber and cot contain electric charges that attract fiber to cot. When pressed together, the two moisture layers have the effect of adhering fibers to cot, causing them to lap up.



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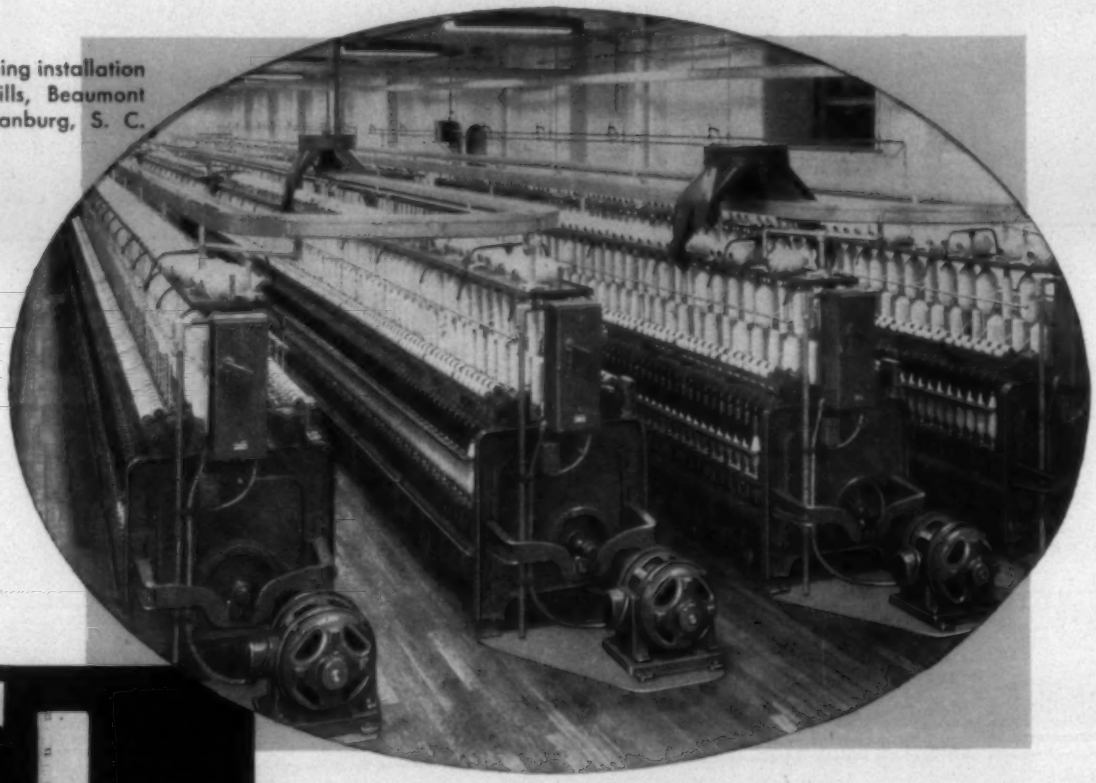
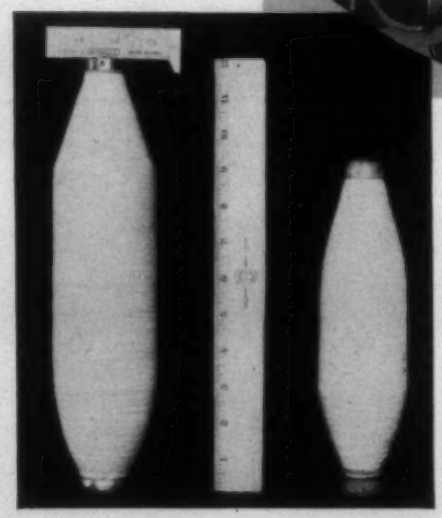


Model F3 Spinning installation at Spartan Mills, Beaumont Division, Spartanburg, S. C.



Unretouched photo of a large package spun on the "F3" and conventional size bobbin. The 11" package contains 7.50's and the net weight of yarn exceeds 16 oz.

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textile bulletin

VOL. 78 AUGUST, 1952 NO. 8

An Appreciation Of The Textile Industry

By H. K. HALLETT

THE textile industry would be a large industry, a huge industry, anywhere and by any standards. But when you get it concentrated in one area and in an area which, like the South, is largely rural, it becomes enormously important for the welfare and development of that region. In the four states of North and South Carolina, Georgia, and Alabama the textile payroll in a full year is about a billion and a half dollars. The industry pays each year two billion dollars for raw cotton, 800 million dollars for chemicals of various sorts, 200 million dollars for transportation, and 105 million dollars for coal, gas and electric power. This industry is truly enormous; it has been called the cornerstone of Southern economy. As textiles go, so goes the South.

When I came South in 1914 just after graduating from Dartmouth, 54 per cent of the textile industry was still in New England. Now you might suppose that this movement South would have been accompanied by a mammoth program of cotton-mill building here, but the surprising thing is that the South today has no more spindles than it had a quarter of a century ago. It had about 17 million then, and it has about 17 million now. The all-time peak of active Southern spindles was reached in 1930 when 18,586,000 spindles were active at some time during the year. Thereafter, the number steadily declined to the present level, and in one or two years fell below it. During the decade of the 1930s, through World War II and up until 1950, construction of new spinning and weaving cotton mills was virtually non-existent.

The limited construction from 1946 to 1949 was confined mostly to finishing plants and hosiery mills. Resumption of construction of spinning and weaving mills in the South was not important until 1950 and even then was largely for the expanding operations in synthetics.

How, then, do we explain the tremendous growth, and the shift from New England, if there was no increase in the number of spindles? To a great extent it represents a revolutionary program of modernization of plant and equipment. Since World War II the industry has installed new equipment as rapidly as it could be delivered. The flow of new spindles by 1949 and 1950 had reached an annual figure of about 800,000 and were installed primarily as replacements rather than net additions. New looms and other complementary machinery were likewise installed at the maximum practical rates. Obviously, this rate was too slow to re-equip the industry within a few years. Consequently, old machinery was largely rebuilt and equipped with all the modern improvements and gadgets which could be attached locally. New machinery layouts, plant adjustments, and air changing, all are a part of the picture. Into this gigantic program, financed from mill earnings, went an expenditure which exceeded the total estimated investment of the industry in 1939. A leading New York investment house recently estimated that this modernization program for the industry as a whole involved commitments of about three billion dollars.

But new and improved equipment is only one growth factor. Equally important are the methods of using it. The radical improvements in techniques of operation extend all the way from the selection and blending of raw fibers to the final operations of finishing. Every stage of this long journey has been subjected to the researches of the engineer and the scientist. Their findings have meant not only greater efficiency in production but improved quality and greater variety of products. As an aid to this program, the industry is reaping the fruits of its large investment in textile education. It has been, and still is rapidly adding to its staff of scientific specialists and college-trained technicians. Also each year sees an increasing number of higher executives who have come up through the mill and who have backgrounds of thorough textile training.

These two growth factors which I have mentioned—modernization of equipment and scientific method—are basic in our progress. They are tangible and measurable, and leave no room for argument as to why we have moved ahead. They have changed entirely the concept of industry capacity. It has been an age-old habit to regard the cotton textile industry as an over-capacity industry. The idea was corrected from about 1925 to the late '30s. The cotton consumption of that period which averaged about 6½ million bales a year was not great enough to provide continuous operation on a profitable scale for the great number of spindles and mills then existing. At that time the over-capacity was clearly a physical excess.

Such is not now the case. With active cotton spindles less than 21 million we are called upon to process anywhere from nine to 10½ million bales. Even in this year of depression we shall consume about 9.3 million. To do this requires an average spindle operation of about 96 hours per week, or 120 per cent of 80-hour capacity. Stated differently, to maintain production at the level of the past few months, the industry must operate two full shifts of 40 hours each, plus 16 hours, or 40 per cent of a third shift.

With the return of normal conditions the requirements will be higher. In the peacetime period 1946-1949 annual domestic requirements averaged nine million bales. Taking

into account the great increase in population and public purchasing power, a new normal or average consumption level of 9.5 million bales does not look unreasonable for the next few years. Around such an average the rate would, of course, fluctuate between good times and bad. We do not need to regard present operations as the low point to reach the obvious conclusion that we have an industry in which the swings from top to bottom fall wholly within the area of the third shift, leaving a substantial percentage of it untouched. Looms typically run closer to three-shift operations than do spindles. Since September, 1947, the ratio of active third shift looms to first shift looms has never been less than 50 per cent in any month, and usually has run much higher.

Consequently. the industry's normal area of flexibility within which it must meet changing conditions of demand is scarcely more than a narrow band consisting of the top half of the third shift operation. Expressed percentually, the area lies between 80 and 100 per cent of full three shift operations.

To meet what it considered the emergency demands of the first quarter of 1951, the industry had to break through the boundaries of three full 40-hour shifts and add eight hours to Saturday work. Such a high average could be reached only because of those mills which were able to go to three 45 or 48-hour shifts. These offset the many others who could operate only a fractional third shift because of unbalanced equipment or a limited labor supply.

I have related to you these facts regrading the industry's production capacity in order to make clear its real nature. The idea of excess capacity in terms of too much equipment and too many mills is pure nonsense. Capacity to produce must of necessity be greater than the average demand if the requirements of boom periods and emergencies are to be met. In the cotton textile industry these demand adjustments are made not by recurrent periods of idleness and activity, as would happen in the case of a physical excess of machinery, but by varying the degree of labor application within the operations of the third shift. This area of adjustment as I have pointed out is no wider than it ought to be.

It should not be narrowed if the industry is to retain the production flexibility it should have in the national interest. It should not be widened, if the industry is to protect the heavy investment it has made and the interests of its employees and its stockholders. However, all phases of the third shift problem are not quite as simple as they sound. If we cut out the third shift entirely in times of slow demand then you lose workers and it's a long-time process to build up your work force again. Also, in less depressed times management must think of fair and equal treatment of the workers on all three shifts. The solution of the third shift adjustment is one for each individual company to handle, because demand is different in different product lines.

H. K. HALLETT, the author of the accompanying paper, is vice-president and general manager of Kendall Mills, with headquarters at Charlotte, N. C. Currently he is first vice-president of both the American Cotton Manufacturers Institute and the North Carolina Cotton Manufacturers Association.

Living in this industry, we are interested not only in the present but also in the future. Is this growth to continue in the textile industry—or, as a matter of fact, in any other industry? It certainly will not if we do not stop the trend of the individual's and the state's dependence on the Federal Government. As H. G. Wells said, "The situation in America is a race between understanding and catastrophe." Do we understand this trend and what the dangers are ahead for the Free Enterprise System?

In a basic economic sense, the major difference between America and abroad is the production output per worker —the ability of the American workman to turn out more goods or services in an hour's time. Elsewhere, the workmen may labor as hard or harder, but he adds less to the real wealth of the country, so there is less for him and his family to share. In America, his efforts are so productive that the necessary items of food, clothing, and shelter, as well as the many luxury items, are within reach of all.

Anything which discourages private investment will curb production, and is, therefore, ruinous. This is true for two reasons: (1) because production is still the best answer to high prices and (2) because production also means a better standard of living. That, of course, is why rabbits are cheaper than mink.

Our high productivity has enabled us to extend gifts of millions both at home and abroad. From our vast abundance, we are able to share our national wealth on a broad scale never equalled in history by any country. In order to share our wealth we must have the incentive to produce. This is being taken away from us by confiscatory taxes. The Red Cross has sense. With blood donors they take only a pint at a time and the patient recovers. Such is not the case with the government and its tax policies.

Today America faces a danger that is bound to arise from waste in government expenditures and lavish donation of the national wealth. Foreign nations are beginning to regard their customary share as something of a right. Here at home the recipients, who run into the millions, are being led closer and closer to the doctrine that government should provide individual security. The political temptations are great and today constitute a powerful force pressing toward the welfare state. Our adoption of noble causes may lead us unwittingly to a loss of individual incentive and self-reliance. From that point to socialism would be only a step.

Let's fight the trends toward the welfare state. The textile industry has developed and progressed by the methods of free enterprise. Hard work, the lash of intense competition, and a courage which would not be defeated have been the price. Neither management nor the great body of workers has submitted to regimentation or to the forces of petty tyranny which are always assailing us from the outside.

To the industry alone does not belong the credit for accomplishment. It has thrived because of the friendly civic atmosphere of the South. Every community which it has entered has a passion to build and grow, even as the industry has. Hence, the industry and the community are joined in a common purpose. Each gives fully to its realization. It is a union which is unconquerable, and will bring us a most prosperous future, provided the government doesn't continue to take away the incentive to develop and to produce.

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THE MILL OF TODAY

By ROBERT Z. WALKER

Part 33 – Building the Spinning Bobbin

THE spinning bobbin is the package holding the spun yarn which is the result of all of the care, expense and effort exercised throughout the preparatory operations and in drafting and spinning at the spinning frame. In other words, after yarn has reached the spinning bobbin its quality, strength and appearance have been definitely determined and cannot be improved. Sizing the yarn at the slasher, gassing, bleaching and mercerizing may be considered as having some beneficial effect upon one or more of these yarn characteristics, but fundamentally the yarn as it leaves the spinning frame is in its final form. While yarn may not be materially improved upon in later processes, it may very easily be damaged and quality or strength reduced. Therefore, assuming that the yarn is of good quality, the problem is to wind it upon the bobbin in the manner which will be most satisfactory for the particular mill conditions.

Basically, there are two types of winds employed on the spinning frame—the warp wind and the filling wind. However, there are other winds which have been developed to suit specific conditions. The situation may be further complicated because, when the finer points of correctly building a bobbin are studied, it becomes apparent that slight changes in the method of building a bobbin may well have significant effects upon the efficiency of the mill. There are mills which, after having studies made by either their own technicians or those of a machinery manufacturer, have had builder cams machined to build bobbins exactly suited to their requirements. While this may seem to be but a minute detail, in a large operation the resultant slight gain in efficiency in the winding operations will more than offset the time and expense involved initially.

The major problem is not so much that of winding the yarn upon the bobbin as in placing it on the bobbin so that it will unwind correctly at the next operation. In common with the demands imposed upon all other stages of yarn manufacturing, the mills have done everything in their power to spur machinery manufacturers into the development of high-speed winding equipment. The main obstacle in this type of machinery improvement has been the inability to produce bobbins that will unwind at the extreme high speeds desired. Naturally, there have been substantial improvements in winding speeds but, as each new level is reached, the search is instigated for means of obtaining new peaks. The mechanics of the winders themselves do not present any problems as the equipment may be easily speeded up. However, the yarn cannot be unwound from the bobbin at excessive speeds without tangling or breaking. Another aspect of this design of bobbin build is that the wind has to be arranged to prevent the yarn from sloughing off over the nose of the bobbin. When the bobbin is shaped to gain the maximum in winding speed it will have a sharp taper, which is the most conducive shape in allowing the yarn to slough off. A moments consideration will show that here again, as in many other technical details of spinning, there is no real solution to a given problem, no best way to do a job, but that the final result must necessarily be a compromise between two opposing forces. For a bobbin to unwind at high speed it must be arranged with coils which will easily pull off, and the easier that the yarn will pull off, the more danger is there of having the bobbin slough. Bearing in mind that a sharp taper allows higher winding speeds and, inversely, that the lesser taper reduces the danger of sloughing, which are both one and the same thing, the mill must adjust the builder of the spinning frame to build a bobbin tailored to its own spicific requirements.

Viewed in the light of being a very significant factor in winding speed and winding efficiency, the build of the bobbin at the spinning frame becomes an important technicality meriting serious study. However, before experimentation of this type can be undertaken, and in fact, before the frames can be put into operation, the type of wind must be decided upon and the frames set up to produce that wind. Unfortunately, this is not a difficult problem as the majority of winds have fairly specific fields in which they should be used.

The warp wind is the standard wind used in all cases except where filling quills are placed directly in the shuttle of the loom after doffing from the spinning frame. The warp wind is a large package wind permitting long traverses and large bobbin diameters. This type of bobbin is produced by the use of the warp cam, warp rack, and the standard warp bobbin. The yarn is placed on the bobbin with the first layer, or traverse, running from the bottom of the bobbin to the top. Each succeeding layer is shorter than the previous one so that the final bobbin is formed with a full taper top and bottom and with each layer of yarn covered by the next layer, except at the end of each traverse stroke. The shortened traverse of each cycle of the ring rail, which determines the length of the stroke, is produced by the inward movement of the warp rack. The amount of decrease in the stroke is controlled by regulating the movement of the rack through the proper adjustment of the pick motion. This wind is not conducive to high winding speeds at the winder or to high unwinding speeds in taking the yarn from the bobbin; furthermore, it does not completely keep the yarn clean. Most of the yarn on the package is covered by the next layer but the extremeties of each traverse are left uncovered due to the manner

in which the build is formed. These short lengths of stock are left uncovered and, as the building of warp bobbin takes a relatively long time, these sections will accumulate dirt and lint to ruin the appearance of the finished fabric.

Occasionally the question is raised regarding the possibility of mathematically calculating the proper lay gear to be used on a spinning frame after the count of yarn is known. Actually a great deal of such mathematical calculations have been worked out by interested machine designers and other highly trained technical men, but always, in the final analysis, the results have been correct only to the point that they may be taken as a benchmark or guide. Invariably, because of the many variable factors and because of individual mill requirements and personal desires, the proper wind on a bobbin can be obtained only by trying different gears until a satisfactory result is attained.

The main difficulty in attempting to work out a standard type of lay is that there are opposing factors which must be satisfied, one at the expense of the other. By closing up the lay, that is, by laying the coils of yarn more closely to each other the length of the traverse, there will be more yarn wound on the bobbin. This is desirable because the bobbin will last longer, the doffing cycle will be increased, and as a result the over-all efficiency of the spinning frame will be improved. At first glance it would seem profitable to close up the lay to the maximum, meaning that it would begin to resemble the roving frame with coils uniformly laid side by side, so as to gain the maximum amount of yardage on the individual bobbin. However, unwinding is easier as the lay is correspondingly more open. Therefore, when the lay is close, and the spinning frame is operating at its peak efficiency, the winder must of necessity be slowed down to compensate for the lower maximum unwinding speed resulting from the closer lay on the bobbin. Another factor entering into any type of calculation of lay is the speed of the ring rail on the spinning frame. In fact, this must be taken into consideration in any mill when setting up the frame. It is common mill knowledge that there will be fewer ends down on the spinning frame with a slow ring rail traverse speed or, within limits, the slower the ring rail the fewer ends down there will be. Here again, however, to achieve satisfactory high-speed winding, the coils of the lay must be open and this means that the ring rail must traverse at higher speeds. The high speed of the ring rail and the open coil is required to prevent the bobbin sloughing off at the winder. From these facts it can be seen that the lay of the coils on the spinning bobbin must be the result of a series of small and interlocking compromises. Open lays are beneficial in obtaining high winding speeds and winding efficiencies but require fast rail speeds whereas high spinning efficiencies and good spinning performance are contrarily based on close lays and low ring rail speeds which allow obtaining more yarn on the bobbin and with less ends down.

However, for the benefit of those who would like some mathematical guide to aid in calculating the proper lay gear, a simple formula has been developed which will be of some help. In fact, it will probably be as sound as more intricate methods, as a certain amount of trial and error is required before the correct lay gear can be applied to any frame under any condition. The general practice in the majority of mills is to use a lay which will range from 28 to 35 per cent of the maximum, with most of these mills using a lay of approximately 33 per cent. The formula that has been used will give the number of coils per inch that should be placed on the empty bobbin, namely, for warp wind, .3 multiplied by square root of the yards per pound of the count or 8.7 multiplied by the square root of the count. Written more simply, these formulas are:

$$\text{Lay (in coils per inch)} = .3\ \sqrt{\text{yards/pound}}$$

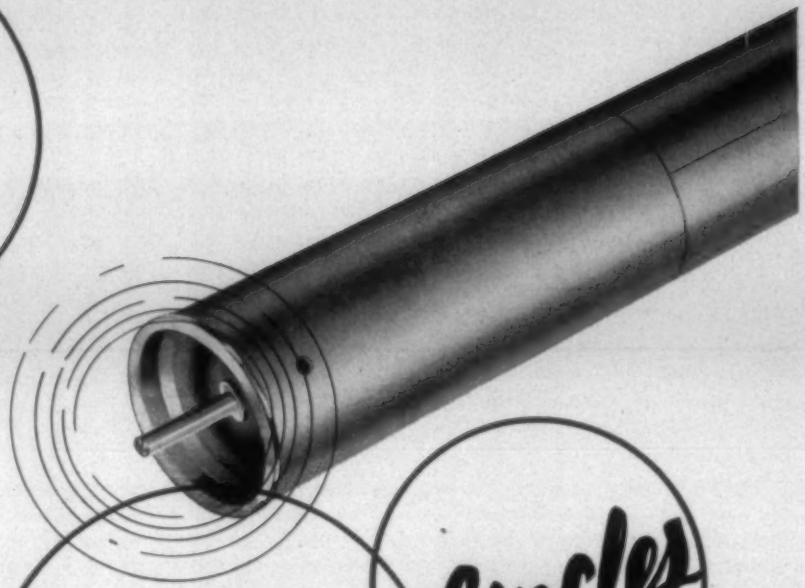
$$\text{or } 8.7\ \sqrt{\text{count}}$$

The problem of ring rail speeds and closeness of the lay is also seen when using the filling wind or combination wind. In fact, the same principles hold true for any wind regardless of its composition. The filling wind is always used on spinning frames which are making yarn that will be used directly on the loom without further winding stages. The bobbin from the spinning frame is taken directly to the loom and is used in the shuttle to supply the filling for the fabric. In this case the problem of unwinding is not as critical but sloughing of the yarn over the nose of the bobbin assumes greater importance.

The filling wind consists of layers of yarn wound on the bobbin by using either a filling builder or a combination builder set for filling wind. In either case the bobbin is built up by using a constant stroke of the ring rail throughout the doff, but raising the rail slightly for each cycle of the traverse. The basic build may be altered by the use of a bottom former which acts to fill out the bottom portion of the bobbin in order to gain more yarns on the bobbin. The bottom former, which may allow a gain in yarn of from six to eight per cent per bobbin, is a chain roller that is substituted for the standard roller and which has a segment cut out of it. The clearance gained by the missing segment permits the builder to traverse the ring rail over the lower portion of the bobbin before starting to rise for each traverse. A bunch builder may also be used on the spinning frame making filling bobbins for the loom shuttle, specifically for those looms which are equipped with feeler motions. The bunch builder causes a small bunch of reserve yarn to be wound on the bobbin at the start of the doff and therefore at the base of the bobbin. The bunch builder generally consists of a cam which holds the ring rail in its lowest position while a number of very short traverses are made so as to build up a reserve yardage concentrated on a small area of the bobbin barrel. After a predetermined length of yarn has been placed on the bobbin, the bunch builder mechanism is automatically disconnected and the regular builder mechanism begins to regulate the winding.

While studying this problem of winds and the relationship of the lay to the building of the bobbin, it should be remembered that the diameter of the ring has a definite relationship to the length of the traverse in so far that the length of the taper may vary. Tapers that are too short will cause sloughing and snarling of the yarn on the bobbin whereas excessively long tapers cause an unnecessary loss of yardage on the bobbin. It is better in the long run to use a medium taper which will assure against snarling even though the maximum amount of yarn will not be on the bobbin. This has to be balanced against the fact that the medium tapered bobbin will not run as long in the loom and the battery hand will have to handle more bobbins per loom, which is preferred over the time and waste loss created by snarled bobbins. With a filling wind being spun on a filling frame having a small ring, much snarling

Seen Only In The Best Circles



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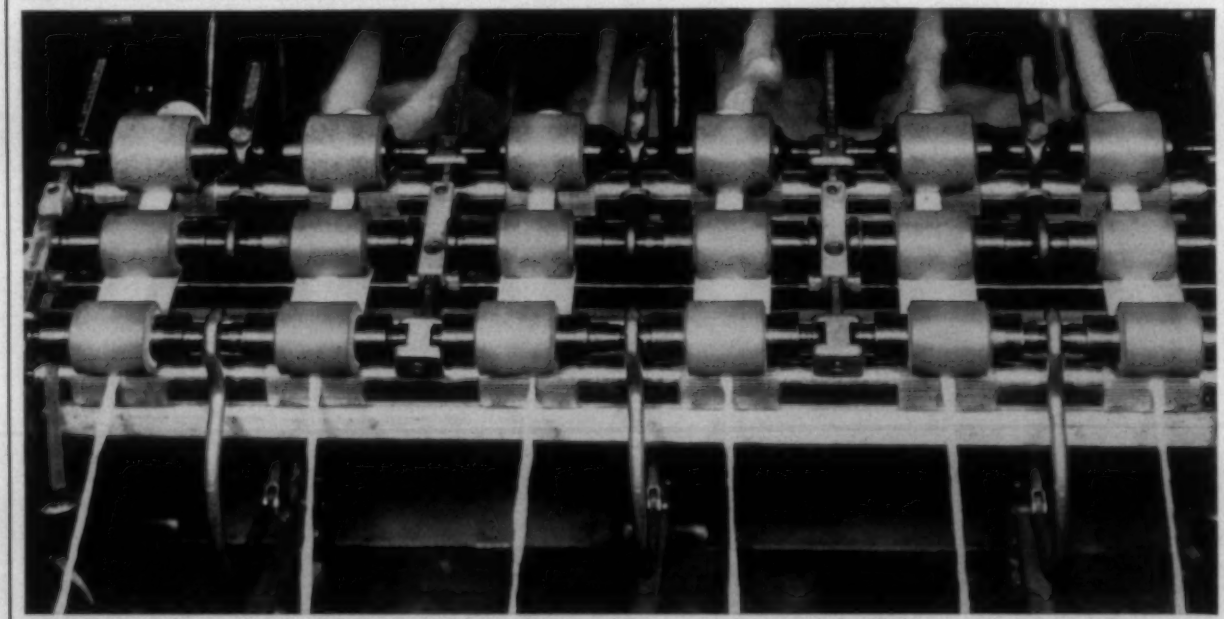
may be avoided by speeding up the rail to creat a more open wind. In fact, it is common practice to double the rail speed when a Draper X high-speed loom is used.

While the type of wind that will be used for a specific bobbin may easily be selected, the cam and speed of the ring rail pose questions which can become very involved. Cam shapes, rail stroke lengths, and rail speeds all enter into attempting to effect the perfect compromise in gaining as much on the bobbin as possible without encountering difficulties in sloughing. As a result of many years of trial and error experimentation on one hand and mathematical calculation research on the other, there are a multitude of filling cams available or in use. Actually, all of these cams are basically the same but have altered contours which change either rail speed or rail stroke in an effort to change the taper of the bobbin or the lay of the coils so that there will be better binding to hold the yarn in place and to prevent it from snarling or sloughing off during unwinding.

A common discussion is whether it is more advisable to run the ring rail slowly on the upward traverse and fast downward, or to reverse this movement. A general consensus of opinion is that, as far as performance at the loom is concerned, there is not any appreciable difference. As one old timer mill man once said, he did not care which way the rail ran, but it always amused him to note that whenever a boss weaver complained, he was very happy when the spinner reversed his cam. As time went on, he was equally happy when the spinner reversed the cam a second time and put it back the same as it was in the first place.

All that it required to change from slow traverse up and fast down to the opposite is to reverse the cam on the builder. The conventional method, used in a majority of mills, is to run the rail up slowly and down fast. When the spinning bobbin supplies a winder it will generally be found that better results are attained by running the rail down slow and up fast. When the rail is moving slowly it puts more coils per inch on the bobbin, spacing the coils closer together, while the fast motion places fewer coils and therefore spacing them more widely apart. The fast motion of the rail lays a wide coil which acts as, and is usually called, a binding coil. With the slow movement of the rail upward and the fast movement downward a bobbin is built which will unwind much better than when made with the fast movement upward. With the slow movement of the rail downward a softer nose or taper is made and the yarn is more apt to slough off during unwinding. One point, however, is that with the rail moving slowly upward and fast going down there is apt to be more ends down in the spinning. This is due to the fact that the change is made at the top of the bobbin where the increased pull created by the change into high speed is exerted on the yarn at the time when the tension is greatest. Because of this it will usually be found that the spinning runs better when the rail moves slowly on the down traverse.

Although there are many types of filling cams having as many as up to nine points, the usual filling cam for spinning has either two, three, or four points. The three point and four point cams are the standard cams for most spinning frames, the two point cam being used for the combination wind. Some cams are built to have an equal rise and fall, causing the ring rail to traverse at the same speed both up and down, while others have a speed ratio of two to one or three to one. It is in this argument that there never seems to be a best answer, with everyone picking the one which seems to work best for him and declaring it to be the solution to everyone's troubles. The variations in speed ratio and the number of points of the cam are all intended to perfect the manner in which the binding coil



THE SACO-LOWELL FS-3W DRAFTING ELEMENT FOR ROVING, a modification of the FS-2 system, is still basically a Shaw drafting unit except that it has a maximum roll spread of 6¾ inches to accommodate a range of staple from seven-eighths to three inches. In extending the roll spread, the drafting element had to be modified in that an auxiliary apron bar had to be provided for the wider spreads. The apron bar is used for wide spreads and is inserted between the front roll and the standard apron bar, in order to support the apron over the wider distance. On narrow spreads, where there is danger of the apron sagging, the bar is not needed, and the apron bar blocks are quickly and easily removed.

holds the remainder of yarn on the bobbin so as to prevent sloughing.

What should be remembered is that, on most cams, there is a slight difference between each lob of the cam. The difference is reflected in the movement of the ring rail and therefore in the spacing of the coils. The points are all the same distance from the center of the cam while the distance to the heel will vary. Most spinning frames are constructed so that the ring rail will be at its lowest position when the point of the cam is in the pitman roll, causing a uniform pattern at the bottom of the bobbin. The variation will therefore be at the top of the bobbin for that stroke and will repeat as the pick motion moves the entire stroke up along the bobbin. The pattern is intended to lock each succeeding layer of yarn over the one beneath it so that there will be less sloughing at high speed, when the yarn being pulled off tends to carry other coils off

The combination wind is becoming more universally used for all types of bobbins except those that are to be used directly in the loom shuttle. The combination wind is made by using the warp bobbin with a filling builder and warp cam, or by using a combination builder set for filling wind. The bobbin is built up of uniform layers of yarn of identical length placed successively higher on the bobbin, caused by unwinding the connecting chain around the chain drum at a uniform rate for each traverse. The biggest advantage of this type of wind is that it is well adapted to high-speed unwinding, with the layers coming off freely without snarling. In particular, the combination wind is suited to high-speed cone or tube winding. The regular warp cam is sometimes exchanged for the combination cam, which is the two point cam, although the warp cam will provide more yardage per bobbin than the combination cam. The combination cam, however, is generally built with a three to one speed rate which builds a bobbin that has less tendency to slough or snarl.

The Bigelow Compensator, A New Development In Wool Carding

A NEW development in the age-old process of carding establishes what is believed to be the first control for transverse variations of roving weights in cards equipped with a broadband feed. The new mechanism, the Bigelow card compensator, was designed by engineers in the quality control and product engineering departments of Bigelow-Sanford Carpet Co. after a comprehensive survey into all phases of the carding operation.

It uses the eccentric sprocket-and-gear principle to slow the traveler as it nears the limits of its cross-wise movement in depositing sliver on the intermediate feed apron. This results in the laying of a longer band of the sliver toward the sides of the card, and compensates for a thinning of the delicate web as the traveler nears its extreme positions.

The Bigelow card compensator has been in operation for three years at the company's Thompsonville, Conn., and Amsterdam, N. Y., mills and in experimental use for two years at the Albany (N. Y.) Felt Co. Tests verify that it has reduced roving weight differences by about 50 per cent.

Davis and Furber Machine Co., North Andover, Mass., and Whitin Machine Works, Whitinsville, Mass., now are

A. G. Klock *(left)*, Bigelow-Sanford's quality control superintendent, and C. W. Carter, quality control engineer, observe the operation of a card equipped with the new Bigelow card compensator which controls roving weights across the card. The compact mechanism is enclosed in the safety cover seen at the far side of the card.

The Bigelow card compensator controls uniformity of roving by gradually slowing the traveler as it approaches this position. Here is where the delicate sliver is stretched and thinned. The new mechanism compensates for this by laying a longer band toward the sides of the apron.

manufacturing the compensator for sale under a licensing agreement with Bigelow-Sanford.

The compensator, described as inexpensive, fits on to the side of the traveler, and is covered by a combined door and safety cover. Set screws permit it to be adjusted to meet the requirements of different machine speeds, stocks and yarn weights.

The problem of variations in roving weights across the width of the card is created, paradoxically, by a phase of carding that was designed to minimize weight variations in the length of the roving. This is the intermediate feed, which substantially cancels out longitudinal differences by laying the sliver in a series of overlapping bands across the width of the card.

In their study, Bigelow-Sanford's engineers repeatedly weighed simultaneous clippings from all 88 ends of roving as they came off the card. These showed a pattern of weight variations across the card which, when plotted graphically, described a "rainbow" arc. The roving ends at the sides were consistently below those in the center, with some of them failing to meet specification.

Further study revealed this was caused by the traveler's stretching the web deposited at the sides of the intermediate feed apron. This laboratory finding was proven visually by two simple experiments. In the first, dyed sliver was laid down the center of the apron, on top of the cross-wise layers deposited by the traveler. Its limited dispersion in the final roving showed the character of the roving was largely established in the intermediate feed.

In the second, additional sliver was dumped manually along the sides of the apron. When done in correct proportions, this flattened out the undesirable "rainbow," placing all ends well within specification. The Bigelow card compensator is a mechanical application of this operation, producing roving of uniform character along the entire card.

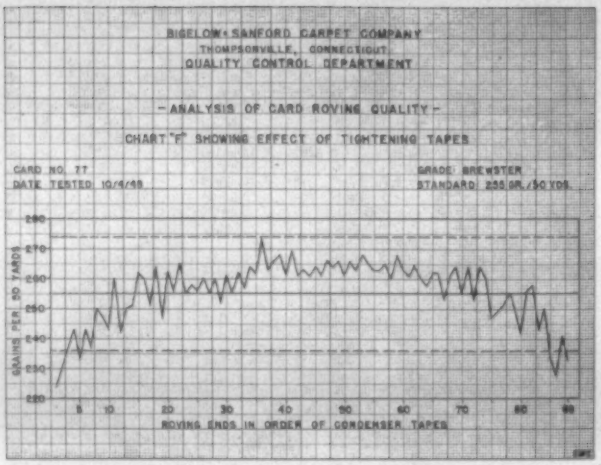
Spinner-Breeder Conference Slated Sept. 1-2

Greenville and Stoneville, Miss., will be the scene Sept. 1-2 for the ninth Spinner-Breeder Conference, which is conducted annually for the purpose of providing a closer working relationship between the various components of the cotton industry from the cotton breeder to the cotton spinner. The conference is sponsored by the advisory research committee of the Delta Council.

The keynote address at the opening session of the conference on Sept. 1 will be made by Burris C. Jackson, chairman, Statewide Cotton Committee of Texas. Claude L. Welch, director, Production and Marketing Division, National Cotton Council, Memphis, Tenn., will lead a panel discussion on improving cotton varieties and efficient production practices to meet mill requirements, consistent with profitable farming.

On Sept. 2, Alfred M. Pendleton, cotton ginning specialist, U.S.D.A., Dallas, Tex., will serve as moderator for a panel discussion on developments toward improved cotton handling, ginning, and marketing practices for increased market outlets.

What most folks are seeking these days is less to do, more time to do it in, and more pay for not getting it done.—*Omega* (Ga.) *News*.



This chart was made from a typical sample of the weights of roving across a card not equipped with the Bigelow card compensator. A "rainbow" arch is formed by the characteristic pattern of heavy ends in the center of the card and light ends at the sides. Five are below specification tolerances.

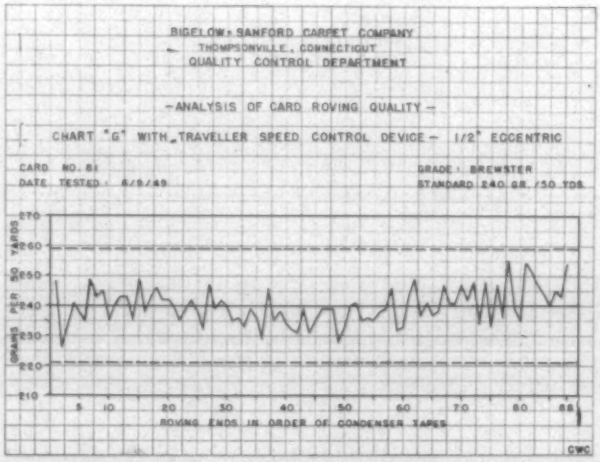
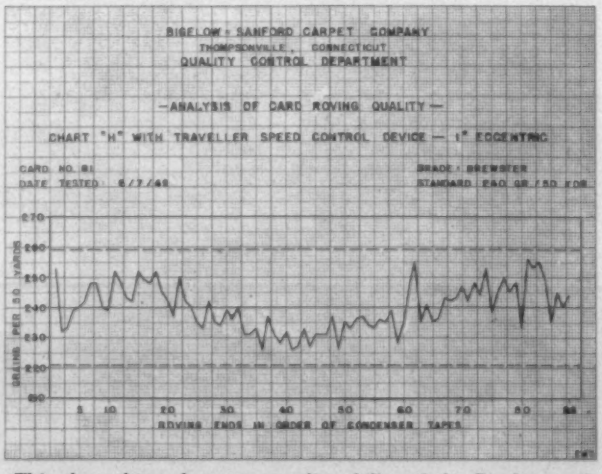
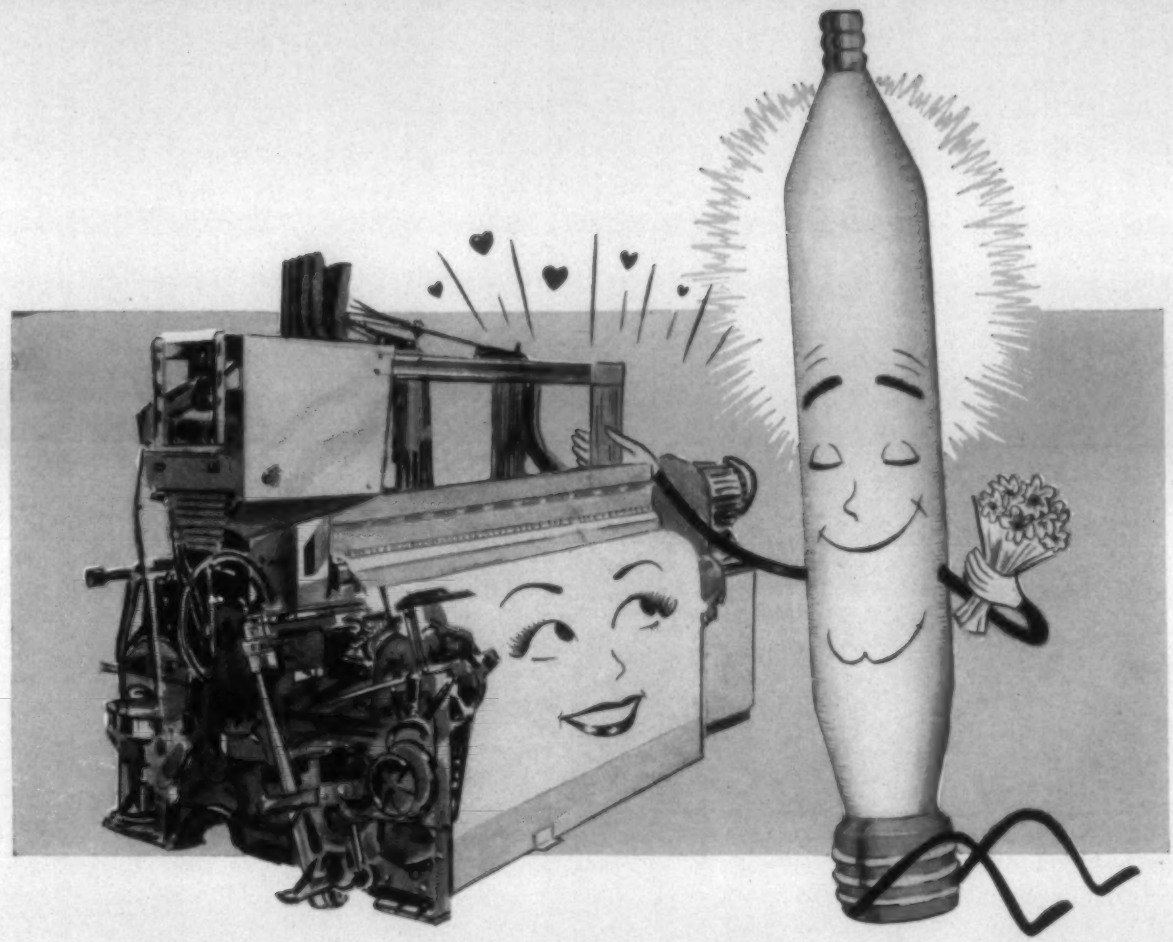


Chart of roving ends across card in which the grain weights of roving are controlled by the Bigelow card compensator. The undesirable "rainbow" has been effectively straightened. All ends are well within specification.



This chart shows the extreme adjustability of the Bigelow card compensator, which can be set to meet the requirements of individual machine speeds, stocks and yarn weights. Plotted is a sample of roving weights taken from card with the compensator at its extreme setting. The result is a reverse of the original problem. Heavy roving ends are at the sides of the card, light ends at the center.



FOSTER-MUSCHAMP "Autofill" Bobbin

A Synthetic Fabric Loom's Best Friend

The Foster-Muschamp Autofill Bobbin is a synthetic fabric loom's best friend because it enables a loom to perform with much greater efficiency. Being comparatively free of broken filaments and entirely free of hollows and ridges, it greatly reduces tight picks, broken ends, loom stoppage and fabric seconds.

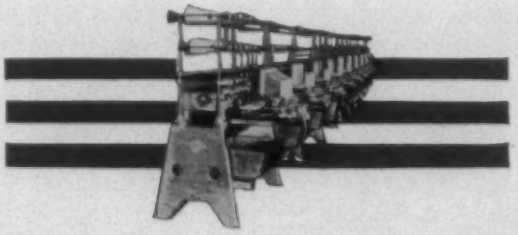
This is because the Foster-Muschamp Autofill Winder precise-winds the yarn on the bobbin by means of a gear control rather than by means of a friction builder wheel. Chafing of filaments is thus eliminated and the lay of the yarn is uniformly correct for the best results.

For the complete story on the Foster-Muschamp Autofill Winder, including six other important features, send for Bulletin M-1 (no obligation).

FOSTER MACHINE COMPANY

Westfield, Mass., U. S. A.

Southern Office — Johnston Bldg., Charlotte, N. C.



Foster-Muschamp Autofill Winder — a fully automatic machine, built to cut costs and improve quality.

Always Uniform

Starch, as well as golf balls, requires precision control in every manufacturing step to maintain unvarying high quality.

That's why over the years Victor Mill Starch has become known far and wide as "The Weaver's Friend."

Victor provides better penetration, stronger warps, smoother surface, less shedding, fewer slashing problems. Rely on it . . . and the Keever man who serves you.

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Homogenization For Warp Sizing

By W. A. HEWITT, Manton Gaulin Mfg. Co., Inc., Greenville, S. C.

THE homogenization process, although comparatively new to the textile industry (having been utilized for about 3½ years), has proved to have a number of advantages over the conventional method of preparing size. It is felt that its use offers one of the biggest improvements in warp sizing that has been introduced in recent years. All types of cotton warps are being processed with homogenized size. These cover industrial fabrics, sheeting, print cloths, shirting and dress goods of the finest combed high constructions.

The use of the homogenizer greatly simplifies the preparation of size. The conventional type cooking kettle is used, the required amount of water is drawn into the kettle, the starch and size compound are added while the agitators are moving and this slurry is thoroughly mixed. Instead of bringing the starch mixture to a boil and holding it there for an average time of an hour and a half, in this process the mixture is heated only to the swelling point of the starch. In the case of potato starch this is 170° F. and with pearl corn starch 180 to 200° F., depending upon the concentration. As soon as this temperature is reached the steam is either cut off entirely or just sufficient is used to maintain this temperature. As a rule it takes about 15 minutes to bring the mix to the desired temperature.

At this point the starch is quite viscous and a pump is used to deliver it to the suction side of the homogenizer cylinder. The homogenizer is a positive displacement pump which subjects the mixture to pressure and forces it through a small orifice or valve. The homogenizing valve consists of two pieces—a valve and a seat so constructed that the opening between them may be very accurately controlled. This is done by turning a hand wheel which controls the space between the valve and the seat. In turn the pressure being applied on the stream of liquid is recorded on the pressure gauge in pounds per square inch.

During this action the stream of mixture attains a tremendous velocity. The shearing action and impact which result from this velocity break up the starch granules, thus converting the starch instantaneously and bringing the viscosity to the desired point. The higher the pressure that is applied, the greater the shear forces exerted on the starch and in turn the lower the finished viscosity. For potato starch this pressure is usually from 500 to 1,000 p.s.i. and for pearl corn starch from 1,500 to 2,000 p.s.i., depending upon the starch concentration and the type of yarn being run.

From the homogenizer the starch is pumped directly to the storage kettles, the homogenizer itself acting as the pump. This considerably reduces the size preparation time cycle and enables the mill to prepare the same amount of size with about half as many cooking kettles, thus reducing kettle maintenance as well as floor space required in slasher room for size preparation. There is also a considerable saving in steam as the starch is brought to the gel point in about 15 minutes and not boiled over a long period of time as in the conventional method.

The time required to pump a given number of gallons of size from the heating kettle to the storage kettle depends on the rated capacity of the homogenizer. Gaulin homogenizers are made in sizes to produce from 100 to 2,000 gallons of finished size per hour. One homogenizer will handle an entire mill's production even if it runs several different size formulas. A number of different size formulas may be prepared with the same set-up of cooking kettles and homogenizer and then transferred to different storage kettles.

No change is suggested in the type of sizing compound being used. It is felt that over a period of years the mill has determined the best size compound for its particular yarns and conditions and there is no reason to change this. The homogenizer acts on the compound as it does on the starch, forming a much better dispersion and blending of the various components to make an extremely smooth finished size. Mills are presently using one, two and three piece compounds with high melting point wax with equally good results.

When the starch is converted by homogenization the starch cells are ruptured by mechanical action rather than thermal as in the case of boiled size. Due to this, homogenized size consists of particles that are very uniform as to size and shape. The resulting product because of finer dispersion of its ingredients has physical properties that differ in some ways from those of the original materials. The size of these particles, which with the temperature governs the viscosity of the sizing solution, can be controlled by the setting of the homogenizer valve. This assures a stable and uniform viscosity and answers the age-old problem of maintaining uniform viscosities in the size box.

Mills which have been using this process for some time state that due to this more uniform viscosity they are securing a much more uniform percentage of size added on the yarn and are able to hold variations within much more narrow tolerances than heretofore. This greater uniformity from batch to batch and day to day has been found to be one of the big advantages of homogenization.

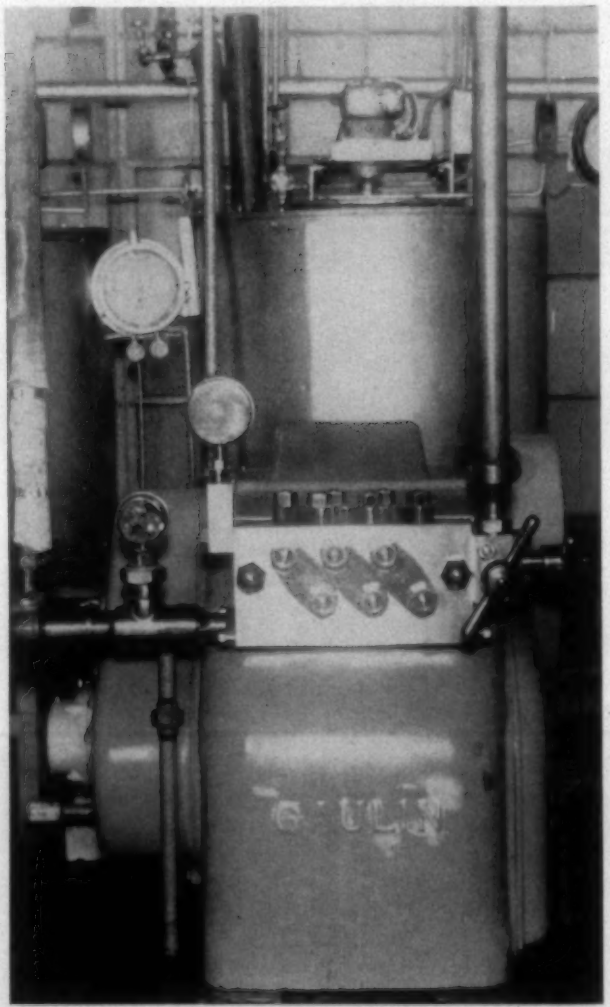
Another advantage is that the size produced is much smoother. This gives a smoother, easier split of the yarn at the lease rods, resulting in fewer broken or loose ends on the slasher. This smoother yarn should produce better over-all weaving efficiencies with fewer warp breaks on the loom. A number of mills all over the country have

found this to be true and have reported increased efficiencies from one to as high as three per cent.

Homogenized starch is much slower to congeal than regular boiled starch, a fact which allows it to spread more evenly on the yarn and cover defects. In numerous comparative tests that have been made on the same yarn slashed with conventional and homogenized size and having approximately the same per cent size added, almost without exception, the yarn sized with homogenized starch has been found to have not only considerably higher breaking strength but also greater elongation. This is undoubtedly due to more uniform particle size, smoothness and slower congealing properties.

Since the viscosity of homogenized size can be accurately controlled and maintained, it is also possible to control very closely the degree of penetration of size into the yarn and the amount of size remaining as a protective coating on the surface of the yarn.

On rather coarse yarns of light construction that do not require a high percentage of added weight a light formula may be run and still be sufficiently viscous for good sizing by not applying the highest pressures on the homogenizer. On finer yarns, both combed and carded of high construction, which require a higher per cent of size added for good weaving, a much higher concentration of starch may be used and by subjecting it to higher homogenizing pressures the desired viscosity that is preferred may be obtained in the size box and at the same time give a higher pick-up of size on the yarn and more penetration into it.



This is one of a pair of 400-gallon per hour Gaulin T.E. homogenizers installed 2½ years ago at Tallassee (Ala.) Mills.

It is through securing the proper penetration of size into the yarn and a smooth surface coating that shedding is materially reduced on both slashers and looms. This type of sizing affords maximum protection to the yarn against abrasion in the loom. Mills which have carefully evaluated this reduction in shedding report that it is from 25 to 50 per cent less than when boiled size was used.

Film strength tests have shown that homogenized starch gives a tougher and more pliable film than those made in the usual manner. The film is also more transparent. On colored warps such as chambrays and denims a clearer, brighter shade is secured because of this and there is less clouding or masking of the warp color on the slasher. Because of the better dispersion and more uniform particle size, the finished size solution is whiter. A number of mills that grade their cloth carefully on inspection report the cloth off the loom has a whiter color and a somewhat smoother hand.

Due to the fact that the starch conversion in homogenization is mechanical, no chemical change or action is involved, so more of the natural adhesiveness of the raw starch is retained which partly accounts for the tougher films. Since the homogenized starch is slower congealing it will not set-up in a hard gel even at room temperatures. This factor has practically eliminated difficulties from hard size and enabled mills to show an over-all reduction in number of seconds. This characteristic also makes it possible when the slasher is being creeled to hold homogenized size in the size box with steam cut off for some time and then reheated when ready to start the slasher without having any hard size. Some mills now do this with boiled size but it is necessary to leave the steam on to prevent hard size and the condensation will cause some dilution. Other mills normally either dump their boiled size or return it to the storage kettle while creeling.

A number of mills having homogenizers have found that it is practical to hold size in the storage kettle over the week-end and then reheat it Monday morning when ready to start. This saves a considerable amount of starch that would be dumped over the week-end. It also shows a labor saving, as it is no longer necessary for the size man to come to work several hours before the mill starts in order to cook size. One large Southern mill held size 14 days over a vacation shutdown and reported that it was equal in viscosity and sizing properties to fresh size. Other mills purposely fill their storage kettles every Friday to be held without heat or agitation until Monday morning when it is reheated.

This slow congealing property also eliminates most of the trouble formerly encountered with clogged size lines that required frequent blowing out with steam. If the mill decides that it prefers to wash out all size lines and kettles and not keep any size over the week-end, a labor reduction may be shown here also. Because of the shorter time cycle mentioned above it is possible to have fresh size going to the slashers within 15 to 20 minutes after the size man comes in.

The entire process is remarkably simple and does not

require any degree of special training, knowledge or skill. Any size man quickly learns to heat the slurry to the proper temperature, open kettle valves, start pump and homogenizer and set the homogenizing valves to deliver the proper pressure. This system eliminates the human element as far as possible. Where the size man performs other duties in the slasher room in addition to cooking size, it has been found that as the homogenizer requires very little attention for its operation he has more free time for his other duties.

All types of starch have and are being used with the homogenizer most satisfactorily. This includes thin-boiling and pearl corn starch, starch gums and potato starch. Most New England mills which are on fine combed constructions normally use potato starch and find that homogenizing thus offers many advantages. Practically all of the mills in the South which formerly used either a thin-boiling corn starch or a pearl corn starch with enzyme or modifier now use regular pearl corn starch without modifier. Many Southern mills that formerly used potato starch on their combed yarns have changed to homozenized pearl corn starch and found they were able to secure equally satisfactory results. Others plan doing this due to recent uncertain supply of potato starch and its current higher price.

Since homogenized pearl corn starch has been found to give equally satisfactory results on all types of yarns, both combed and carded, and on all constructions, most mills prefer its use as it is 60 cents per 100 pounds lower in price than thin-boiling corn starch, which means a saving of about eight per cent on the cost of all starch used.

When the change is made from thin-boiling corn starch to homogenized pearl corn starch there is normally a reduction of about ten per cent in starch consumption. This was not done originally with a view of saving starch. It was found that when the pearl starch was substituted pound for pound for thin-boiling that it gave about 1½ per cent more weight on the yarn. In most formulas it was found that reducing the concentration of the pearl starch about ten per cent would give the same pick-up on the yarn as they had been securing so this change was made to match added weight rather than to save starch.

A number of mills which have been operating homogenizers several years and which have carefully checked all factors now report that they are putting the same percentage of starch on the yarn and that their over-all starch consumption is about ten per cent less since installing homogenizers. It is felt that this may be accounted for by the fact that less starch is wasted and because of the more complete breakdown of the starch cell that it actually goes further since there are no undispersed granules.

The matter of concentration mentioned above opens up interesting possibilities. Where for certain reasons a mill desires a higher percentage of starch on the yarn than they were securing, they may substitute the homogenized pearl starch pound for pound for the thin-boiling starch and pick up about 1½ per cent more added weight. Some mills increase concentration beyond this for more added weight.

On the other hand, some mills having their own finishing plants feel that it is to their advantage to run with just as little starch on their warps as is consistent with good weaving. Since, as shown above, a higher breaking strength and greater elongation is secured from homogenized warps with approximately the same per cent size, it is possible to obtain sufficiently high breaking strength and elongation for good weaving with less added size on the warps thus reducing starch consumption.

Under normal conditions it is recommended that where the same per cent size is put on the yarn, that no changes be made in the weave room humidity. Some mills in category last mentioned felt that they were not only running too much added weight from an economic standpoint but also too high weave room humidity. Without difficulty these mills were able to reduce amount of starch on yarn and at same time reduce humidities, thus lowering cost and securing better working conditions. In each case weaving efficiencies were equally as good as before and in some instances they were improved. Several typical installations together with the mill's findings and formulations are given below.

A large Alabama mill has been operating homogenizers for more than two years. They report they are pleased with the results and maintenance has been low. They have less shedding on both slashers and looms. There has been a slight increase in their weaving efficiency and appearance of their goods has been improved. They have more uniform sizing and less trouble keeping weights within standard tolerances. The saving in starch has paid for the equipment. This mill makes sheeting, twills, drills, ducks and chafer fabrics. Their formulas before and after installing homogenizers are:

200 lbs. thin-boiling starch	180 lbs. pearl starch
18 lbs. compound	17 lbs. compound
200 gals. finished size	200 gals. finished size
Heat to 210° F. and boil 1½ hours	Heat to 200° F. and homogenize at 1,800 p.s.i.

A medium-sized Carolina mill makes wide sheeting and has its own finishing plant. They have reduced their weave room humidity several points and are putting about 1½ per cent less added weight on their warps. Weaving equally as good as before and shedding has been reduced. Before and after:

200 lbs. thin-boiling starch	170 lbs. pearl starch
22 lbs. binder gum	19 lbs. binder gum
11 lbs. tallow compound	10 lbs. tallow compound
214 gals. finished size	214 gals. finished size
Heat to 210° F. and boil 1½ hours	Heat to 200° F. and homogenize at 1,500 p.s.i.

A large Carolina mill makes 80-square printcloth, broadcloth, pillow tubing and wide combed sheeting. They have one homogenizer and run the first formula below on the first three mentioned fabrics and the second heavier formula on their wide combed sheeting. They had a very high efficiency to begin with and state they are securing equally as good results from the homogenized warps. Savings paid for the equipment in a short time.

200 lbs. thin-boiling starch	200 lbs. pearl starch
28 lbs. binder gum	28 lbs. binder gum
10 lbs. tallow compound	10 lbs. tallow compound
206 gals. finished size	217 gals. finished size
Heat to 210° F. and boil 1½ hours	Heat to 200° F. and homogenize at 1,800 p.s.i.

200 lbs. thin-boiling starch	200 lbs. pearl starch
26 lbs. binder gum	26 lbs. binder gum
10 lbs. tallow compound	10 lbs. tallow compound
172 gals. finished size	195 gals. finished size
Heat to 210° F. and boil 1½ hours	Heat to 200° F. and homogenize at 2,000 p.s.i.

A medium-sized fine combed mill runs warp numbers from 40s to 60s. They have fancy yarn dyed warps and

make lenos, handkerchief goods and dress materials. They were already running at very high efficiency but report the homogenizer showed an improvement of about one-half per cent in weaving efficiency and a reduction of approximately 50 per cent in shedding. Although they do not use a great amount of starch, their saving on this item alone was sufficient to pay for the homogenizer within a year.

130 lbs. potato starch	120 lbs. potato starch
8 lbs. sizing compound	8 lbs. sizing compound
160 gals. finished size	160 gals. finished size
1 lb. mill wax	1 lb. mill wax
Heat to 210° F. and boil 2 hours	Heat to 200° F. and homogenize at 1,000 p.s.i.

There has been considerable interest recently in the idea of locating a large slurry tank in the starch storage room that would hold at least enough size for the mill to run eight hours. Under this system the warehouseman could draw a predetermined amount of water into the tank, dump a certain number of bags of starch into it and thoroughly suspend the mix with the agitators.

The size man would not have to touch the starch but could draw the required number of gallons of this premixed slurry into his conventional cooking kettles by starting and stopping a pump located near the mixing tank. This is feasible even though the starch storage is some distance from the mill and the slasher room is several floors up. The size compound would then be added in the cooking kettle and the heating and homogenizing carried on as before. The advantages of this plan from a material handling standpoint are obvious and it would make for a cleaner slasher room with less waste from broken bags and dust.

There are now several Southern mills running homogenized pearl starch on spun rayon warps of acetate and viscose blends with excellent results. The advantages are similar to those obtained on cotton. The finishing plants report that this type of size de-sizes just as readily as the British-type gums that were formerly used and dyeing and finishing is entirely satisfactory. The savings here are even greater than those on cotton warps as the cost of the pearl starch is from 20 to 25 per cent less than that of the standard gums.

Homogenizers have also been used for sometime on worsted warps as well as those containing blends of wool and synthetic fibers. Other uses for homogenizers in the textile industry include preparation of wax emulsions, soaking and throwing solutions, picker tints, printing pastes and back filling. Work is now being done on the possible advantages of homogenizing gelatin sizes as used on synthetic filament warps.

SO YOU WANT GOOD CLOTH!

By FRANK D. HERRING

Part 38 – Training Loom Fixers

IN PREVIOUS installments of this series I have covered a planned program of procedure in selecting and training loom fixers. First I suggested an aptitude test for the trainees to determine their capabilities for this type of work, and I want to again emphasize the fact that this selection of the trainees is of vital importance, and should be done with much care and thought by capable men. Next, under the supervision of the instructor we assembled the entire loom, applying and adjusting every part of the loom and giving the reasons why. I suggested the use of two looms, one empty and one with a warp on it so that the application and adjustments of these parts could be thoroughly explained to the trainee under actual weaving conditions. After the trainee was put on a section of looms I suggested that the instructor be allowed to spend considerable time with him so that he might get started off on the section without too much uncertainty and confusion. This phase of the training program is vital, because building a loom and fixing a loom require different knowledge and skills, and most youngsters will become rattled and confused when they are put on a section unless they have the assurance that they have someone to call on when the going gets hard. This will give the trainee the much-needed confidence to take hold and carry on alone, and he will develop into a better loom fixer in much less time than he would without the guidance and help of the instructor at this stage of the game.

The program which I have suggested is a tried and proven one, as I have used it over a long period of years at many mills with satisfactory results. The key to the whole program is the proper selection of the trainees, and of course the ability of the instructor. The instructor must first sell himself to the trainees by gaining their confidence, and to do this he must convince the trainees that he knows enough about the work to give them their needed start so that they might become loom fixers. The instructor must use a lot of patience and tolerance and go into the smallest details when explaining the various problems to the trainees, and above all other considerations the instructor must conduct himself in such a manner when working with the trainees to prevent them from getting the idea that he is a Smart Alec, or know-it all, but instead he must impress on their minds that all he can hope to do is to help them get a start, and that he expects them to carry on from there and become much better loom fixers than he is. (When writing these articles I am forced to say some things that give the impression to some readers that I am trying to glorify and advertise myself in the hope of getting offers of jobs, of which I have had many, but with the permission of the publisher I would like to state that I am not looking for a job, as I have one with which I am satisfied).

The program which I have given will enable the trainee to take a section of looms and fix them, but I do not contend that he is a finished loom fixer when the instructor

turns him loose on the job, because he certainly is not. But with a will and determination to do the job he can carry on from there, with very little help, and develop into a good loom fixer, because the instructor has given him the basic fundamentals and much of the detail work involved in running a section of looms. Another thing well worth remembering by the trainee is the he will never stop learning provided he is interested in his work and retains a desire to learn and advance in his line of work.

Another thing he should keep in mind at all times, regardless of how long he has been fixing looms, is that every other loom fixer knows something helpful to him that he does not know, and by friendly co-operation and free and open-minded discussion of their problems he can get much help from the other fellow. One of the most pathetic creatures which I can imagine is a loom fixer who has himself fooled to the extent that he has learned all there is to know about loom fixing and weaving, because when a man gets in this kind of rut he will cease to learn and advance in his work, and will actually become a detriment to the whole organization, and will never become a first class fixer unless someone is able to snap him out of his little dream world. This of course is a job for the supervisor, and unless he makes an honest effort to get the fixer back on the right track, he is shirking his duty to himself, the fixer, and the employer. Every man should believe in himself and his ability to do the job at hand, but no man has a right to this belief unless it is sustained by worthwhile accomplishment on the job. Instead of a man sounding off as to how good he is on the job he should strive to develop the capacity of being a good listener, as this trait will pay big dividends in the long run in self satisfaction and accomplishment on the job. I have said this before, and I want to say it again: good loom fixing requires straight, sound thinking on the part of the loom fixer, because faulty operation of many parts of the loom will very often cause identical troubles, and the fixer must analyze the trouble and then think of the many things which could be the originating points of the trouble and check all these parts before leaving the loom, because just making a loom run is not always good loom fixing. For instance, there are many things which will cause a loom to throw the shuttle out while the loom is running, and when a fixer is called to a loom giving trouble he should check all the things which he knows might cause this trouble before leaving the loom.

I firmly believe that a planned training program for loom fixers is absolutely necessary. It has many advantages, and not the least of them is that it gives the management the opportunity to select young men to train who are most likely to stay with them, but regardless of how good the instructor is, he positively cannot teach the trainees everything about fixing. He can give them the fundamentals, but he cannot tell them how to cope with all the problems which will arise after he has been put on a section of looms, because the varying conditions are so numerous that ways and means must be devised when the problems present themselves, and in this event the trainee must call on his own skill and ingenuity to solve the problems.

As I have stated before, the training program merely prepares the trainee to fix the loom under average conditions, but very often the fixer is called upon to fix looms under conditions which are more difficult than the average, and sometimes supervisors are too quick to criticise the instructor and the trainee because the trainee is unable to handle the situation under these extreme changed conditions.

As an example of what I mean, we will say that a mill has been running for years on light open pick, low construction fabrics, and for some reason it becomes necessary to change over and put on the looms a high construction, high pick fabric with tape selvages. In this event someone will usually have to go to the trainee's aid, because he will be faced with many problems which cannot be included in his training program, because some experimenting will have to be done before anyone will be sure what changes and settings of the various loom parts will be necessary to meet the many changed conditions. When a change of this type is made, the following troubles will present themselves: the tape selvage threads will break out excessively, the tension on the cloth will vary, running tight and slack, and the looms will slam off. In this event the first thing to do is to set the harness, making sure that every harness is shedding right, and then time the harness with the shuttle in the shipper handle end of the loom with the two back harness level with the reed about three inches back from the fel of the cloth, or from front center position. This setting will cause the harness to be wide open when the lay reaches front center, and this should stop the uneven tension on the cloth, and should also decrease the slamming off of the looms.

But if the looms continue to slam off a little more power should be added to the pick by taking up on the lug strap; this will lengthen the stroke on the picker stick, but after this is done the pick should be checked to determine if the time of the pick is correct, and if not the pick cam should be adjusted. Correcting the bagging of the cloth, or uneven tension, is absolutely necessary before the tape selvage breakage can be corrected, and sometimes to correct this trouble the let-off will have to be worked over to remove excessive lost motion and checked to see if it is in good condition and holding.

After the above-mentioned things have been done check the temple roll burrs on both temples to determine if they are right, because these burrs are made in right and left-hand and they must be put in correctly on high pick fabrics in order to hold the cloth out to full expansion to prevent excessive chafing of the selvage threads. Of course the tape selvages should be set to shade right, open wide enough to clear the shuttle, but not too wide, because this will put excessive strain on the selvage threads.

After all these things have been done, sometimes excessive selvage thread breakage will continue and when this is the case, turn the lay to extreme front center position and examine the selvage threads to determine if excessive strain is being put on the selvage threads by the drop wires or the girt. If this is found to be the case it will be necessary to make the necessary adjustments on the girt or whip roll, or both, to relieve this strain.

I mention the foregoing extreme change in order to prove my point that no man can determine and be sure about the many problems we are likely to encounter when changing from one fabric to another. On some fabrics one must put special emphasis on cover, or face on the fabric; on others we have no problem regarding face or cover but are presented with the problem of making the loom run without excessive loom stoppage caused by settings of the

parts on the loom and warp breakage. When these extreme changes are made it is wise to put a warp on one loom and work out the problems, get the answers, and then make gauges to set up the balance of the looms being changed.

When a trainee is put on a section of looms he will always find that there will be a few looms on his section which will give him the most trouble. These are the looms he should concentrate on and examine thoroughly. Get the answers; make them go, because these are the looms which contain the problem. Before closing this article I would like to offer this advice to the trainee who has been put on a section. You have been put on a section because the supervisor believes in your ability to do the job, and he will gladly and willingly see that you are given the necessary aid to help you get off to a good start, because this is mutual benefit, provided there is no other reason, or consideration. You are expected to give your best and try and fix the looms, and when you do this you seldom will fail, because when a man does not know the answers, but is giving his best efforts he will get the necessary aid to get him over the bumps and hard places. You are expected to work in complete co-operation and harmony with all other employees with whom you come in contact with on the job.

Research Projects May Result In Savings

The textile industry may effect a savings of many thousands of dollars as the result of projects which have been carried out at the Southern Research Institute, Birmingham, Ala., it was learned recently. Through sponsorship of research work by various chemical producer and textile firms, the institute has found that certain cellulose derivatives when used for sizing in the weaving process are highly effective in preventing the shedding of fibers.

Heretofore, the industry has been afflicted not only with a loss in fiber from shedding, wherein the size, or coating on the yarn, sheds off in the weaving process but has been faced with an additional expense in cleaning the shed lint out of the mills. The shedding loss has been running as high as one pound for every 100 pounds of yarn woven. These losses are greatly reduced with the use of the new cellulose derivatives, the Textile Information Service reports.

Still another research project, under sponsorship of Avondale Mills, gives even more promising results through a sizing process known as "wet leasing." This, too, tends to reduce the amount of shedded lint.

The new discoveries have been made in research projects on the loom-shed problem which have been carried on for about six years by the institute's textile section, now headed by Dr. Edward Abrams. Researchers have developed a set of evaluations of various materials for warp sizes.

The institute has evaluated the new sizing materials on special equipment installed in its textile laboratories. This includes a laboratory-type slasher and a "shed-tester" (a modified loom developed under Avondale's sponsorship). The slasher draws a large number of yarns through the size solution at the same time, dries the water, then winds up the sized yarn on spools. The shed-tester simulates the actual weaving operation.

As the sized yarn is run through the shed-tester, the resulting shed is collected in a container beneath the device; by weighing this shed and correlating it with the total weight of the yarn run, institute researchers have been able to test effectiveness of the various sizes in preventing shed. It was as a result of this work that the institute determined the effectiveness of certain cellulose derivatives in preventing shed.

Here's how the new wet leasing process operates: In the ordinary cotton mill slasher, individual warp yarns are cemented together by the size as they are drawn through the size box and drying oven. They are then split apart by a series of "lease rods." "The real goal is partially defeated," Dr. Abrams says, "in this process of sizing and drying.

"Obviously," he points out, " if many yarns are sized and baked dry while in contact, it is impossible to form an even, protective coating around each individual yarn. When the yarns are subsequently torn apart, large uncoated areas are produced. These will later result in excessive shed. Improperly sized sections will also result in costly breaks during weaving." It has now been proved that "wet-leasing" can overcome just such deficiencies. This process insures that each yarn is separated from the others while still wet, and is then passed through the dryer.

The institute has now obtained for the first time, through mounting nine steel rods in line between the size box and dryer. These rods were attached to a gear train which turns them in the direction of the yarn travel. "As the yarns emerge from the size box," Dr. Abrams explains, "they are separated by the lease rods before entering the dryer. Each yarn passes over one rod and under the next, and is thus wiped on both sides. The rotation of the rods serves to wipe the size continually on the yarn and also to prevent build-up of size on the rods." This system, the institute says, has proved "remarkably effective."

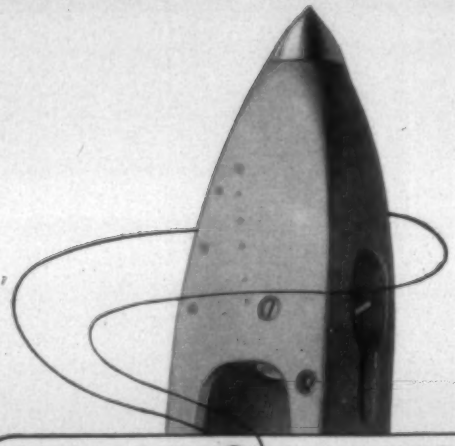
The institute has now obtained for the first time, through evaluation of mill-sized yarn in its shed-tester, specific information on the amount of shed obtained under mill conditions. Such projects as these, Dr. Abrams reports, are indicative of the increasing desire of the textile industry to utilize research to turn out better products at lower costs, thus benefitting not only the mills themselves but the consuming public.

Worth Street Historical Society Organized

Organization of The Worth Street Historical Society, a new group for the collection of historical data about the New York City textile market and to publicize the history of the Worth Street area, was announced recently by Frank L. Walton of Catlin Farish Co., Inc., its president. Other officers are: vice-presidents, Floyd W. Jefferson of Iselin-Jefferson Co., Inc., and John M. Reeves of Reeves Bros., Inc.; treasurer, Durand Taylor of Durand Taylor Co.; and secretary, Seth M. Milliken of Deering, Milliken & Co., Inc.

Trustees of the organization, in addition to the officers, include Richard G. Conant, Wellington Sears Co., Inc.; Magruder Dent, Joshua L. Baily & Co., Inc.; Saul F. Dribben, Cone Mills, Inc.; John C. Hughes, McCampbell & Co., Inc.; and George M. Miller, Turner Halsey Co.

All firms in the textile industry and particularly those in the Worth Street area are being asked to preserve their old records, and to donate or loan them to the historical society, Mr. Walton stated. Old records, trade marks, fabric samples, historic documents, pictures, maps and other material of historic value to the industry will be wanted.



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Du Pont's Pressure Dyeing Machine

A PRESSURE fabric dyeing machine—the first major change in batch dyeing methods for fabrics in 500 years—was shown publicly at Wilmington, Del., for the first time Aug. 5 by the Du Pont Co. Although still in the development stage, the machine was demonstrated to more than 150 representatives of the nation's textile industry at a conference under the auspices of two of Du Pont's departments—textile fibers and organic chemicals.

The pressure dyeing machine is being developed by the textile research division at the Newport Textile Laboratory of the Du Pont Co. as part of the long-range research program to facilitate and perfect the dyeing of new synthetic-fiber fabrics, particularly those of Orlon acrylic fiber and Dacron polyester fiber.

Paul M. Cole, senior research engineer of the engineering department's machine development section, who designed the machine, pointed out that the development is not near completion but he said it potentially meets every one of the 14 characteristics of an "ideal" dyeing machine. "It needs the refinement of the textile machinery manufacturer and the experienced touch of the practical dyer," he said. He disclosed that the development is named "Barotor," (pronounced "bar rotor") because its principal mechanical parts consist of a rotor and uniquely operating bars within a steel cylinder. The machine is normally operated at 250° F., corresponding to a pressure of 15 pounds per square inch.

Du Pont developed the "Barotor" largely as a service to customers, Mr. Cole said, and licensing arrangements under pending patents are being made with several textile machinery firms. The dyers will be free to use the "Barotor" without royalty.

The 14 points of the ideal dyeing machine which the "Barotor" potentially meets, Mr. Cole said, are: fabric is open width at all times; tensionless and wrinkle free; all points in uniform and frequent bath contact; operability with all fabric constructions, both filament and spun; handling of batches as small as 100 yards and batches in excess of 1,000 yards; rapid bath agitation or circulation; wide range of bath ratios permissible; exact duplication of conditions between laboratory and production scale; no need for attention during dyeing; fabric sampling and bath additions made without opening vessel or losing pressure; samples always representative of entire fabric; essentially cylindrical in shape for 100 per cent utilization of the lowest cost pressure vessel; minimum cost of operation and maintenance; and investment commensurate with productivity in comparison with atmospheric dyeing of natural fibers.

The announcement of the "Barotor" closed a full day conference on dyeing Orlon acrylic fiber and Dacron polyester fiber. The program, under the direction of Dr. J. H. Trepagnier of the textile fibers department, included papers on the dyeing of Orlon, by Dr. R. H. Blaker, Dr. P. L. Meunier and G. T. Hug of the organic chemicals department. The dyeing of Dacron was discussed in papers delivered by Dr. W. R. Remington of Jackson Laboratory, Dr. R. J. Andres of textile fibers research and Dr. Meunier.

In a general session preceding questions and answers in the afternoon, Dr. J. E. Smith of the organic chemicals department told of new Du Pont antistatic agents and W. G. Rhoads, textile fibers department, spoke on advantages of aqueous dyeing at temperatures above 212° F.

Dyeing of Orlon staple fabrics with indigo and certain vat colors by a new acid-leuco method will make possible navy and possibly black shades at a much lower cost than similar dyeings made with combinations of acid dyes based on the relatively expensive anthraquinone blues, the conference on dyeing Orlon and Dacron was told by Dr. Meunier who discussed the new method under the title "Dyes and Methods for Orlon," crediting the development to the dye application research division.

The new acid-leuco technique for applying indigo and certain vat dyes to Orlon produces deep navy shades approaching the shade of indigo on wool, Dr. Meunier declared. "Most important of all," he continued, "is the high degree of fastness obtained. With light fastness of 80 to 160 Fade-Ometer hours, excellent wasing and perspiration and good crocking fastness, dyeings of indigo on Orlon promise to be of considerable importance in the future.

"The following procedure, describing a two-piece run of 100 per cent Orlon in a closed dye beck, will serve to illustrate the process: (For 100 pounds of fabric made of 100 per cent Orlon)

Volume—4,000 lbs. water (500 gals.)
30 lbs. Du Pont Indigo PLN Paste
20 lbs. sodium bisulfite
4 lbs. Sulfoxite C
2 lbs. Duponol D Paste

"Color and chemicals are added to the cold bath, temperature is raised to the boil and held for five to 15 minutes to effect reduction of the indigo to a light, greenish-yellow acid lueco. At this point, an additional amount (0.5-1.0 lb.) of Sulfoxite C might be required to complete the reduction. With the overhead steam line on, the dyeing is continued for 1½ to two hours at the boil, about 210° F. The dyeing is oxidized, without changing the bath, by adding 15 to 20 pounds of Albone C and boiling for 15 minutes. (If the dye bath is dropped, oxidation is accomplished in a fresh

bath by the use of five to ten pounds of Albone C for 15 minutes at the boil.) The oxidation bath is dropped, and the material is rinsed and scoured with 20 pounds sodium carbonate, ten pounds sodium hydrosulfite, two pounds Duponol D Paste in 4,000 pounds of water at 140°—160° F., for 15 minutes.

"Although our experience is limited to piece dyeing, we believe that the process will be applicable to stock, top and yarn. One point should be stressed, however. At the end of the dyeing the material must be scoured with hydro and soda ash to remove surface pigment color for improved crocking fastness. It is believed that this might be done satisfactorily in circulating equipment, but thus far it has not been demonstrated."

Five factors of primary importance in the dyeing of Orlon by the copper method were emphasized by Dr. Blaker who opened the discussion on Orlon with a presentation of the chemical "Principles of Copper Dyeing of Orlon—The Controlled Reduction Potential Method."

Dr. Blaker noted that this is the only method by which this type of fiber can be dyed a full shade range at temperatures near the boil, the other alternative being raising of the temperature to 250° for heavy shades with selected dispersed, basic and vat dyes. The copper procedure is limited to acid and selected direct colors.

The copper dyeing method is unique, Dr. Blaker noted, "in that an inorganic ion, the cuprous ion, is absorbed by a fiber and once on the fiber creates affinity for dye."

The five factors of primary importance listed by the speaker were:

"First, the copper is effective in promoting the dyeability only when it is in the cuprous valence state; second, the rate of absorption of cuprous ion and hence of dye is very slow when below 212° F.; third, the absorption of cuprous ion depends strongly on the pH of the dyebath; fourth, the amount of cuprous ion absorbed from a dyebath is proportional to the amount in the bath and to the bath-to-fiber ratio; and, fifth, the amount of dye absorbed is proportional to the amount of cuprous ion absorbed by the fiber.

"The production of the cuprous copper in the dyebath is the most important feature of the copper method," Dr. Blaker continued. "In principle the copper may be added to the dyebath as cuprous salts—in practice it has been found necessary to produce the cuprous copper directly in the dyebath through the reaction of a cupric salt, usually copper sulfate, and a suitable reducing agent. Hydroxylamine sulfate has proved to be the most useful reducing agent at temperatures near the boil. Once the cuprous salt is formed in the dyebath it must be absorbed by the fiber before any dyeing will take place."

In most cases of blends of staple Orlon acrylic fiber with wool, rayon or cotton, nylon, acetate or Dacron polyester fiber will call for a two-bath method of dyeing to obtain best results, Mr. Hug told the conference.

"There are also some limitations upon the shades obtainable," he continued. "Blacks, navies and dark browns cannot always be made and the desired brightness may not be produced.

"Blends of Orlon with wool currently can be dyed to solid shades only by the use of basic colors, plus acid colors" he noted. "For the dyeing of blends with rayon we have a choice of vat or direct colors for this fiber and primarily acid or basic colors for the Orlon," he continued.

"For blends of nylon with Orlon, the cuprous ion method or basic dyes will be used for the Orlon. Nylon is either dyed first with chrome or neutral dyeing acid colors or dyed in a second bath with suitable acid, Capracyl or dispersed dyes. Blends containing either Dacron or acetate will require colors for these fibers and acid colors, dyed by the cuprous ion method, for the Orlon."

Mr. Hug expressed the hope that "as our dyeing techniques improve and possibly our range of suitable dyestuffs is increased, we will overcome many of the problems with which we are still confronted."

The difficulties of other methods of dyeing Dacron can be avoided by dyeing at about 250° F., according to Mr. Remington. "At this temperature," he said, "the chain molecules of which Dacron is composed apparently jump around so vigorously that there are momentarily formed gaps big enough for a dye molecule to pass through. That is, at this temperature Dacron behaves in about the same way that acetate behaves under normal dyeing conditions.

Mr. Remington pointed out that the advantages of high temperatures are found even more strikingly in dyeing by the Thermosol process. "Here the temperatures are even higher, and complete penetration is obtained in a few seconds."

Another method for getting the dye molecules into the Dacron fiber, Mr. Remington continued, was to "bring them in smaller pieces and assemble them after they are inside. Sometimes, this scheme is combined with the use of a carrier. This process is in many respects similar to the application of diozatized and developed colors to cotton or rayon. The result is similar, too, in that there is formed inside the fiber a dye molecule too large to get in or out readily."

The problem in dyeing Dacron, he said, "results from the compactness of the fiber structure which prevents dyes from diffusing through it rapidly." This reluctance of the fiber to let the dye travel through it does bring one "excellent result," he added. "It brings almost automatically a high degree of wash-fastness."

A new method of dyeing to yield "deep shades of excellent fastness" on Dacron polyester fiber was reported by Dr. Andres, who described the Thermosol process, which he said Du Pont was "actively developing."

Exposure briefly to a temperature, usually above 350° F. is an important step, during which, the speaker said, "the color penetrates the fibers and is fast to removal even by the strongest laundering procedures."

In the Thermosol process, he said, a coating of dye is applied to the fiber which can be in loose staple, tow, top or fabric form. Since a preferred method for applying such a coating is from a liquid medium, a drying step is necessary to remove the liquid. After the drying comes the exposure for a short time at temperatures usually above 350° F. This fixing treatment is followed by a scour to remove any of the assistants used in the coating step and to remove surface colors which might not have been fixed.

"The three-step method involves simple application of padding, drying and heat-setting techniques, which are well-known to dryers and finishers," he pointed out.

Dacron responded very well to this process, Dr. Andres reported, in many cases of dyeing, "since deep shades of excellent fastness and good color yield can be obtained."

With Orlon, he said, the dry heat fixation is considerably less effective and the operation has only limited usefulness for this fiber. "Nylon, like Dacron, responds well," he said.

Dr. Meunier told the conference that an improved method for dyeing unions of Dacron and wool has been developed whereby heavy shades of good fastness to crocking, perspiration and light are now obtainable. The dyeing of Dacron staple, like Orlon acrylic fiber staple, he said, has progressed through the discovery of new and improved methods of dyeing and the development of new dyes.

Important new dyes of the Latyl series have been developed for high fastness along with good brightness, he said. Latyl Violet B was described as a "much needed, non-tarring dye useful as a base for dark shades."

Development of high temperature dyeing techniques and machinery for stock, top, yarn and piece goods is providing advantages in cost of dyes and chemicals and fastness properties compared with dyeings at the boil, Dr. Meunier stated.

Outlining the "Advantages of Aqueous Dyeing at Temperatures Above 212 Degrees Fahrenheit," Mr. Rhoads listed the following: Orlon—(1) no carriers needed for heavy shades; (2) wider selection of reducing agents; (3) basic colors have better fastness and solidity of shade; and (4) wider selection of dyes. Dacron: (1) shorter dyeing times; (2) better wash and crockfastness on filament fabrics; (3) better uniformity on continuous filament fabrics; and (4) no carriers needed.

Machinery for dyeing at temperatures above the boil, available today for stock and package dyeing and for knitgoods, will soon be available for piece goods, Mr. Rhoads said.

Three new anti-static finishes were introduced at the Du Pont parley. All were described in a paper by J. Edward Smith and Mason Hayek. One is durable and expected to find its greatest use on consumer goods, and two are fugitive types expected to prove valuable in mill processing of various kinds.

The durable finish, believed to be the first that is both highly effective and highly resistant to laundering with soap, is described as a complex organic cationic compound and for the present is called TLF-701. Application is by padding or impregnation at room temperature or exhausting onto goods which are not amenable to the padding operation.

The two non-durable agents are known as Antistat N and TLF-548-E, both alcohol phosphate compositions. Both can be used in aqueous, oil or organic solvent systems, it is stated.

However, the TLF-548-E is termed preferable for use in most aqueous systems because of its superior solubility in water, while Antistat N has more pronounced organic solvent compatibility. Both are said to be highly surface active and in water dispersing excellent wetting agents at room temperature or higher. Detergent and emulsification properties in soft water also are claimed.

In addition, the paper continued, "They impart corrosion resistance to metals under many conditions. They should be of interest as an antistatic ingredient of oiling and lubricating compositions for fiber stock and yarns, as anti-static additives for sizing baths, and as finishes for fabrics where prononunced softening is not required and a non-durable but highly effective antistat meets the finishers needs.

"In addition to its effectiveness for elimination of static, Du Pont Antistat N is effective as a lubricant to facilitate high-speed sewing operations. Application to Orlon and Dacron in deposits of 0.05 to two per cent on the weight of the goods with variations is recommended."

NOTES ON STRIPPING AGENTS

By A. CHEMASTER – Part One

STRIPPING agents have outgrown the mystery of various mixes and compounding of chemicals plus penetrating agents. Manufacture of straight stripping agents under many chemical names is now an established branch of the textile chemical industry. These straight chemical products presently are evaluated according to individual properties and adaptability to various processing methods.

Chemically stripping agents are compounds that possess (1) oxidizing or bleaching properties, (2) reducing action on dyestuffs, and (3) ability to destroy on some types of dyes either by oxidation or reduction the color chroma of the dyestuffs dyed on the goods under test. Chemists in earlier days prepared for sale under proprietary names "one shot" stripping agents about which the plant user knew only a smattering—except that on many occasions it required double or more of these compounds to obtain the necessary stripping on goods under treatment, before they were ready for re-dyeing.

The widespread use of acetate, viscose rayon, nylon and other synthetic fibers with the natural fibers such as wool, cotton and silk has required a wider knowledge of stripping agents so they may be applied advantageously and economically in all plant operations, whether it be a "re-working and re-dyeing" operation or some specialized operation that requires the "cleaning up" of some particular fiber in a fabric for effect purposes.

In non-technical terms these stripping agents are classified below as to their chemical properties possessed during the wet processing operations in which they are used:

(1) Oxidizing (bleaching) compounds—sodium hypochlorite (commonly known as chemick); sodium chlorite (Textone, Mathieson Chemical Co.); organic chloride (Aktivin, Aktivin Corp.); potassium permanganate (Carus Chemical, etc.).

(2) Reducing compounds—sodium hydrosulfite, sodium formaldehyde sulfoxylate, zinc formaldehyde sulfoxylate (Royce Chemical, Rohm & Haas, Du Pont, Virginia Smelting, etc.).

(3) Complete color destroying agents—titanium sulfate, potassium permanganate, sodium hypochlorite and sodium chlorite.

Selection of stripping agents depends upon type of dye-

stuff used on the goods to be processed as well as the nature of the fibers in the goods. On an over-all basis, colors dyed on acetate, nylon, wool and silk are usually stripped in a neutral or acid bath whereas the cellulosic fibers such as cotton and viscose rayon are processed in a neutral or slightly alkaline bath.

There are exceptions to this general rule, these being (1) when using dyestuffs dischargable with hydrosulfite, and (2) potassium permanganate, titanium sulfate and sodium chlorite may be used in stripping cellulosic material (cotton and viscose) as all three products operate advantageously only in an acid condition.

The chief reason for this general rule is that the cellulosic fibers are sensitive to tendering in acid operations, hence the use of alkaline stripping operations such as sodium hydrosulfite and sodium hypochlorite. The use of sodium hypochlorite must be handled with care as overbleaching of cellulose causes tendering to a marked degree as an acid process.

The sulfoxylate compounds are usually processed advantageously on wool, acetate and nylon. The stripping of Orlon, Dynel, Acrilan and Vicara appear at the present to follow similar processes used on acetate, wool and nylon with various adaptations to prevent injury to the fiber or fabric and make them suitable for re-processing and finishing.

Chemical Cotton Finishing Parley Sept. 25-26

Approximately 60 research experts from the cotton textile, finishing and chemical industries are expected to take part in a conference Sept. 25-26 at Washington on progress being made in the chemical finishing field. The conference will be sponsored by the National Cotton Council. Sydney M. Cone, Jr., secretary and treasurer of Cone Finishing Co. and president of the National Association of Finishers of Textile Fabrics, will serve as general chairman of the conference.

Dr. Leonard Smith, director of the council's utilization research division, called chemical finishing the newest development of the cotton textile industry. He said: "A few finishes for cotton, such as wrinkle-resistant and water-repellent and fire-resistant type finishes, have already been produced in large quantities, but these barely scratch the surface of what can be done and what can be seen in research studies already under way."

Dr. Smith explained that in chemical finishing the cotton fabric becomes a chemical which reacts with other materials so that the very nature of the cotton itself is changed in the processing. "New chemical groups are thus permanently attached to the cellulose molecules making up the cotton fiber and new properties of immense value to the consumer are durably conferred upon cotton," he added.

"Good heat-resistance, exceptional mildew-resistance resistance to fire and resistance to wrinkling and mussing are only a few of the properties which can be realized by chemical finishing. Spot and stain-resistance, modified dyeing properties, and resistance to acids and chemicals are other properties which studies have demonstrated are present in chemically modified cottons."

Principal research into chemical modification and finishing is being carried out at the Southern Regional Research Laboratory of the Department of Agriculture at New Orleans and by the chemical industry. The results of this research will be reviewed at the conference and the practical problems involved in bringing these developments into commercially successful processes will be discussed, according to the N.C.C.

Dr. Smith said that scientists have not yet been able to estimate the limits of the changes which can be produced in cotton through use of chemical finishing. One new process has developed to the point where it produces a fiber so different from normal cotton that it can be dissolved in water.

Eventually, he said, the chemically finished cottons will be widely used for household, clothing and industrial purposes. He also predicted that this new science would bring to the consumer within a few years cotton fabrics which are entirely unknown today.

New Book Themes Textile Printing

Textile Printing, by Fred F. Jacobs, 219 pages, Chartwell House, 280 Madison Avenue, New York 16, N. Y. *Textile Printing* is described as a thoroughly modern and practical book on the art of printing textile fabrics—from cotton to nylon. Technicians engaged in textile printing, manufacturers and executives will find many valuable suggestions for improving their methods and formulations.

The author has prepared a critical survey of available dyestuffs and chemicals as well as methods most suitable for their application. The book shows how to evaluate dyestuffs and thickeners with a view to the textile materials to which they will be applied and how to choose processes and formulate print pastes to meet the end-use requirements of the fabrics.

The book gives accurate instructions for the pre-treatment of the various cloths before printing, for the preparation of chemicals, including thickener and print-paste formulation, and for carrying out the printing and finishing operations. Special sections are devoted to the identification of fibers and to the determination of dyestuffs on the fabric.

Armco Cites Savings With Stainless Steel

Armco Steel Corp. reports several interesting case histories of the use of stainless steel in textile mills. One example is given where a Southern piece-dyeing mill replaced 12 wooden vats with six new stainless steel machines in 1939. Production went up; savings totaled about $10,000 the first year and savings are still going on.

Another example are the dye pots and tables. Sixteen years ago, a mill changed to stainless steel for dye pots and tables. Type 316 was used for pots; Type 302 for the tables. These are the savings, based on a service life of 20 years.

ANNUAL COST OF LABORATORY DYE POT TABLE
STAINLESS STEEL VS. CAST IRON

	Cast Iron	Stainless Steel
Initial cost, including all accessories (based on service life of 20 years.)	$18.00 per yr.	$32.50 per yr.
Replacement of parts (tubs, steam coils and insulation) at the end of 10 years	8.00 per yr.	0.00 per yr.
Normal maintenance (wiping outside surfaces, etc.)	Same for both	
Scraping rust and other corrosion products from inside of tubs (1 hr. per week labor @ $1.16 per hr.)	60.32 per yr.	0.00 per yr.
Total Cost	86.32 per yr.	32.50 per yr.
Est. annual savings when stainless steel is used.		53.82

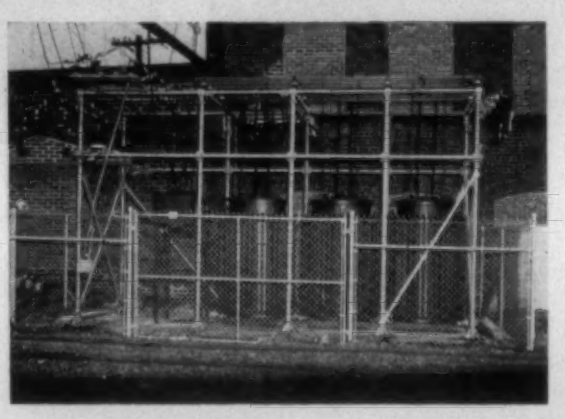

Photo showing Sub-Station structure furnished and installed by Southern Electric Service Company, Inc., Charlotte, North Carolina. This was designed for 2400 volts primary to 600 volts secondary for conversion to 4160 volts, 3 phase, Wye connection primary to 600 volts secondary.

For Highland Park Manufacturing Company, Charlotte, N. C.

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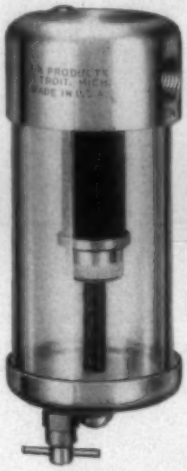
Do You Have WATER, DIRT OR SLUDGE IN YOUR AIR LINES?



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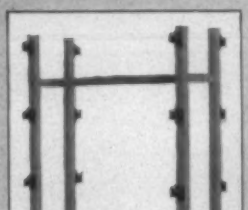

Fig. 310 Lap Truck

Fig. 870 Box Truck

Fig. 360 Baling Press Truck

Fig. 304-A Doffing Box Truck

Fig. 88-SXRF Caster With Thread Guard

Fig. R10HDW Rubber Tired Wheel

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Heat Economy In The Mill

By LEO WALTER

THE following brief survey of recommendable methods for reduction of heat consumption in textile plants has been written for management of plants, and is presented in more or less "non-technical" form. The textile technologist and engineer has usually to keep abreast of production developments but has little time to study developments in heat economy, which latter bring in turn savings of steam, hot water, gas, electricity, coal and fuel oil. Nevertheless, although fuel is plentiful in the United States and Canada at the present time, economies never come amiss in competitive production.

One of the main reasons why management and the plant engineering department of textile mills should be interested in heat economy is the undisputable fact that increase of thermal efficiency of plant equipment invariably also improves over-all efficiency, i.e., provides often increased output, or more uniform goods, and can also reduce the number of seconds or of rejects. Saving of steam in the finishing department by introduction of certain heat economy measures will thus produce a double benefit. It will reduce the fuel bill and will improve manufacture. Introduction of improvements in the boiler and powerhouse will not only bring fuel cost down, but due to supply of steam at constant pressure and at adequate volume all the time to manufacturing departments will increase over-all efficiency of production. What a blessing it is in a vertical plant to have steam available during the whole working shift without pressure drop is obvious, and will reflect itself in improved production. Thus the resulant benefits of increasing thermal efficiency of boiler and powerhouse, and of use of steam, hot water and other heating media, in manufacture have to be considered not only from the amount of dollars saved in the fuel bill, but also from many "invisible" savings which result in an indirect way from heat economy measures. A point very carefully to be watched is that for example steam generated in the boilerhouse in an economical way is not wasted afterwards during distribution and use in the various processing departments.

Working conditions in many plants have produced steam starvation at certain periods, where peak steam demands make processing in finishing departments difficult. The boiler load is at certain time periods bigger than it should be, and steam pressure drops and delays operations, such as heating of water or liquors, drying, etc. The obvious remedy, either to install a larger boiler or to install a steam accumulator, involve severe financial outlay and often have to be turned down flatly because of the financial outlay involved. Thus a more or less silent and continuous battle develops between boilerhouse and manufacturing departments, such as dyehouse or finishing departments, which disturbances may become nerve racking, but are of no avail (Fig. 1).

There exist, however, various remedies worthy of investigation. Reduction of peak load demands on the boilerhouse can be achieved by reducing steam consumption in general. New boiler accessory devices are available whereby an existing redundant but otherwise usable boiler can be transformed into a steam accumulator at reasonable cost.

FLEXIBLE VALVE SHIELD, which prevents corrosive or hazardous liquids from spraying on operator if valve packing fails, are now being manufactured from neoprene synthetic rubber by Industrial Products Co., 2820 North Fourth Street, Philadelphia 33, Pa. The idea for the shield, which comes in three sixes, originated several years ago in a Du Pont chemical plant.

The shield is molded in the shape of a flower pot. To install it, a hole of slightly smaller diameter than the valve stem is cut or punched in the bottom. The valve wheel is removed and the shield pulled down over the stem so that it covers the packing gland. It doesn't have to be wired in place and can be installed while the valve is in service. Where necessary, the edge of the skirt can be trimmed to suit the contour of the valve body. A major advantage of the shield is its flexibility. It can be turned back to inspect the valve or to tighten the packing gland nuts. Since it need not be removed, there is no risk that it will not be replaced.

By reducing the steam consumption per unit output of goods, boiler peak loads can be reduced. By eliminating out-dated steam heating equipment in the finishing department it is not only possible to increase actual production of goods, but at the same time to cut out excessive steam consumers.

Similarly, power load may be reduced, or steam consumption from engines improved by close investigation of indicator diagrams. The target in a well organized textile plant should be to use dry saturated steam at the lowest possible constant supply pressure for process and space heating, but at the highest possible pressure for power generation, with utilization of back-pressure or pass out steam for process work.

All the above suggestions are based on the assumption that plant management knows not only the amount of steam generated in the boilerhouse, or available from back pressure or pass out engines at any moment, but also the exact steam consumption of each plant department, and also of each group of steam consuming machines. It pays always to supervise each larger steam consuming piece of equipment individually by means of a steam meter. In instances where heat exchanging surfaces are present, such as steam heating coils, measurement of condensate will give steam consumption figures.

During recent years the use of combined power and heating units has made great progress in textile plants where the steam-power ratio is suited to back pressure generation throughout the year. There are many instances, however, where small back-pressure steam power units can be used with advantage, such as fitting of air heater batteries or of unit heaters with small back-pressure steam turbines instead of electric motors, whereby the exhaust or back-pressure steam heats the heating elements. A survey of power economy will not come amiss in many textile plants where the demand of power exceeds the amount of back-pressure steam which would become available by installing a new power generation unit.

Many Diesel engine installations for generation of power could contribute to reduction of heat peak loads by waste heat utilization, thus applying combined power and heating, as illustrated in Fig. 1-A showing the use of warm cooling water boosted up in temperature from hot exhaust gases in a heat exchanger. Hot water can thus be generated either for process work, or for space heating during the Winter, or for both. Installation of a waste heat steam boiler is also possible, working in conjunction with the boilerhouse. The increase of storage volume for hot water for process in finishing departments by means of waste heat is obviously a means to relieve a dyehouse from steam starvation in the morning or after lunchtime. Another method can be to boost up hot water storage temperature in the morning during the peak demand by means of a booster heater using exhaust or pass-out steam.

The prominent part which instrumentation plays in fuel and heat economy during generation and use of heat for processing or space heating in textile plants need not be emphasized. Measurements of working factors, such as temperature, pressure, rate of flow, liquid level, etc., have become standard practice. There is scarcely any installation of a new plant or of finishing equipment performed without using measuring instruments. Automatic controllers are, however, less frequently used for finishing operations although their value as means for increased heat and fuel economy should not be underestimated. The following brief survey is based on practical experience regarding heat economy resulting from improved instrumentation in textile mills. The design of the control instruments recommended cannot be dealt with here due to limited space, but emphasis is placed on possibilities for application of automatic process controllers in practice. They repay their installation cost partly from heat and fuel economy achieved, partly from

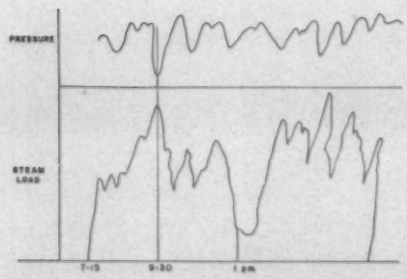


FIG. 1

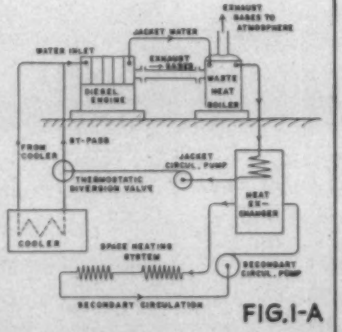


FIG. 1-A

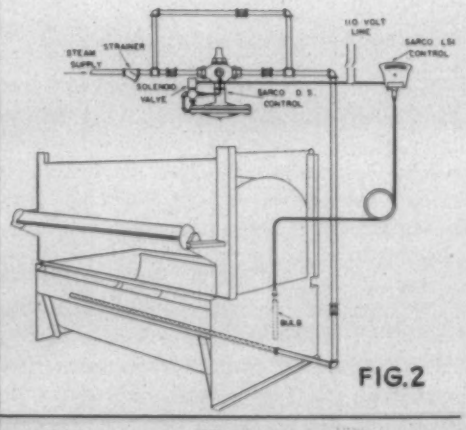


FIG. 2


FIG. 3

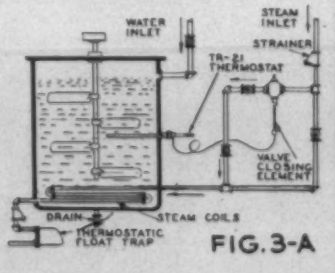


FIG. 3-A

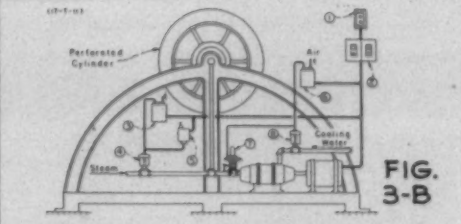


FIG. 3-B

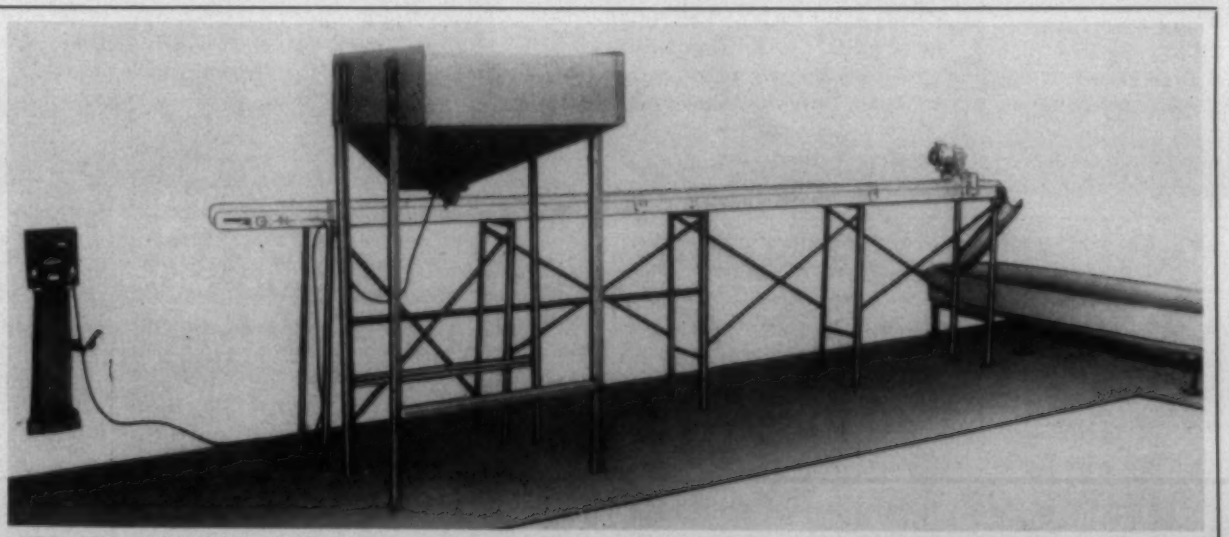
Fig. 1—Rate of steam load varies from 2,000 to 15,000 pounds per hour; boiler pressure drops at 9:30 a.m. from 100 p.s.i. to 60 p.s.i. *Fig. 1-A*—Utilization of waste heat. *Fig. 2*—Adequately controlled equipment is desirable. *Fig. 3*—Circular chart of dye vat recorder-controller showing temperature curves. *Fig. 3-A*—Steam control of size kettle. *Fig. 3-B*—Steam cycle control of decating machine.

increased output of more uniform textile goods at higher quality.

The term controllability of a textile finishing process does not seem to be always considered, when ordering a new piece of plant equipment using steam, hot water, gas or electricity. A heat flow process can be either adequately controllable, or it may be more difficult to control. Good controllability of a heat flow process such as washing, scouring, bleaching, dyeing or drying allows bigger steam and fuel savings, with less elaborate and lower priced controller types (Fig. 2). It should always be aimed at to design and install finishing plant equipment which is very easily controllable. This has nothing to do with the question of output, or equipment design in a broader sense, although generally speaking, efficiency and controllability of plant equipment go usually hand in hand. A new machine or apparatus using steam might have been designed for maximum output, but the designer might not have consulted the control expert in the first stage of the design about prospects of automatic steam control, with subsequent lowered controllability. A hot water storage tank having steam coils might hold the required water volume, but keeping the hot water temperature steady may not be as good as desired, because controllability of the vessel has been neglected, when sizing and locating the heating coils. Very often a finishing process vessel containing a liquor, heated by steam coils, has been designed with low controllability, although it fulfills other requirements. Another example is a hot air dryer which might be less elastic to changes of heat load as would be desirable for achieving efficient automatic temperature and humidity control. Wherever a heat flow process is concerned using steam or hot water and proves to be difficult for control by hand, the first step before fitting automatic temperature controllers, or other control instruments, must be to investigate controllability. Where controllability by hand is low, this must be put right first. After this has been performed, steam and fuel economy by means of automatic control instruments can then be considered, and will be achieved by using the right control method (Fig. 3).

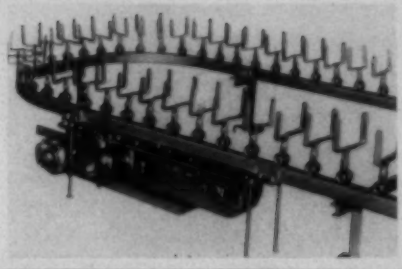
So much about plant design and its influence on controllability and on heat and fuel economy in textile finishing operations.

It is no secret that a great number of finishing operations are run inefficiently with consequent waste of fuel, steam and heat in general. What is urgently required in these days of fuel shortage is that management realizes how steam and fuel economy can often be improved by more favorable methods of working a finishing plant. The best designed plant can be spoiled as far as steam and fuel economy is concerned by running it haphazardly for output under manual control. For example, unnecessary stoppages of continuous hot air dryers using a conveyor belt add not only to consumption of steam, but they produce also reduced dryer controllability effecting quality. The bad influence of peak loads of steam, causing steam starvation in processing are well known to increase fluctuation of boiler load with subsequent reduced boiler efficiency. The suggested remedy may sometimes be to control heat demand by staggering the heat load from dye vats, washing and scouring machines, etc., in conjunction with automatic steam control of each machine. This will not only maintain output at reduced steam and fuel consumption, but will also improve quality of the processed material (Fig. 3-A). A very close survey of a finishing plant with a view to controllability will therefore often disclose means for heat and fuel savings. The quickest indication for inefficiency in finishing are over-temperatures or under-temperatures occurring during processing. The first waste much fuel because of unnecessary heat input, the latter lengthen the process, and thus



THIS NEW CONVEYOR manufactured by Sunray Co. of Spartanburg, S. C., is designed on the closed-type principal so that continuous or intermittent conveying can be utilized to feed automatic spoolers and similar machines. The photograph *at left* shows the conveyor belt removed, revealing the endless track to which are attached rigidly spaced U-shape supporting members for the flexible belt, which is made of canvas or other elastic materials. The supporting members ride on ball-bearing rollers, assuring quiet operation with a minimum of resistance.

The belt, being flexible and one-piece, will not damage bobbins which are poured onto it, nor will it catch strings or trash. The belt overhangs the ball-bearing rollers and track, thus protecting the rollers and chain from flying lint, loose ends, etc.



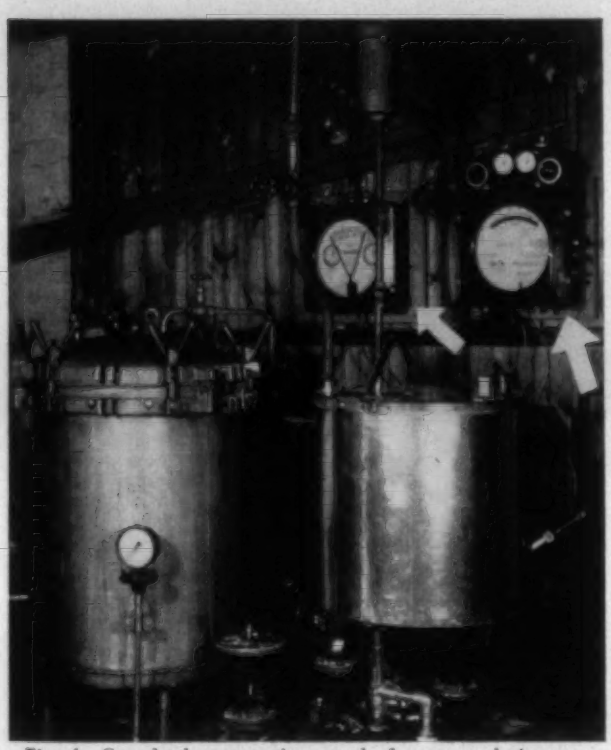


Fig. 4—Completely automatic control of pressure dyeing machine.

increase running heat losses from convection and radiation of exposed plant surfaces during idle periods, apart from low output.

When reorganizing the layout of an existing finishing plant, or when altering a manufacturing method using heat, it will always pay to call in the control expert. The same applies when designing "home-made" plant equipment, such as hot air dryers, heating vessels, etc., or when reconstructing same. There are still some really horrible specimens of self-made hot air dryers in operation with either over or under-dimensioned heating surfaces and fans, or wrongly placed and under-sized air outlet openings, and the like. These dryers are scarcely controllable, but waste steam and fuel all the year round, and are often only kept in operation because they have been "home-made." To apply control instruments to such dryers could be wasted money, because their controllability is usually very poor. After all other means, such as improved dryer insulation, recirculation of air, etc., have been applied to get steam consumption down, the installation of automatic control instruments will then improve dryer efficiency to the top limit, and keep it there (Fig. 3-B).

A great source of waste of steam in finishing is the uncontrollable process of liquid boiling in open-topped vessels. Water or other process liquids boil at approximately 212° F., which boiling temperature is inherent, and cannot be controlled. The use of high steam pressures for dyeing in open dye vats, jiggers, etc., is certainly wasteful, because many steam bubbles pass simply through the bath uncondensed and produce the foggy atmosphere typical for some dyehouses. Pressure reduction of process steam is therefore highly desirable for many reasons, not only from the point of view of controllability. The use of low pressure steam in boiling, dyeing, scouring and bleaching reduces formation of fog. By using "submerged" boiling, open vat dyeing becomes controllable, for example, by setting a dye vat thermostat at 211° F., i.e., one degree below full boil (Fig. 4). Where steam is used for agitation of the dye liquor, it should rather be replaced by compressed air, or mechanical stirrers, or by circulation pumps because to use steam bubbles solely for liquid agitation is waste of heat. As a general rule, large volumes of hot liquid are usually better controllable for temperature than smaller ones, and larger process vessels are preferable for heat economy. For example, an instantaneous heater of the tube and shell type is less controllable than a large hot water storage calorifier with adequate, but not oversized, steam coils and good insulation. It seems high time that a certain shyness should be overcome in the use of automatic control instruments, which would benefit the textile industry as a whole and reduce the fuel bill.

Advisory Board For Plant Maintenance Show

A 12-man group of industry executives, primarily advertising and sales heads, has been chosen for the advisory board of the Plant Maintenance Show and Conference, to be held at the Public Auditorium, Cleveland, Ohio, Jan. 19-22.

Both show and conference have been planned on a scale never before attempted in the maintenance field. Three hundred and fifty companies are expected to conduct exhibits, with some displays scheduled to be larger than 3,000 square feet. Total display space will be 75 per cent greater than that of the show held in January of this year, and six times larger that the 1950 sxposition.

The conference, too, will undergo a huge expansion. More than 60 separate sessions are planned. Virtually every industry will have its maintenance problems discussed in separate sessions, in addition to panels devoted to the maintenance policies of top management.

L. C. Morrow, consulting editor, *Factory Management and Maintenance,* will serve as general chairman.

On the advisory committee are D. F. Beard, advertising director, Reynolds Metals Co.; J. K. Byrne, sales manager, Complete-Reading Electric Co., Inc.; C. J. Copley, advertising department, Socony-Vacuum Oil Co., Inc.; S. W. Corbin, assistant manager, industrial divisions, General Electric Co.; Howard F. Eastwood, vice-president and secretary, Barreled Sunlight Paint Co.; William Flatow, Jr., assistant general sales manager, West Disinfecting Co.; Orville C. Hognander, vice-president and sales manager, G. H. Tennant Co.; H. R. Meyer, manager, maintenance sales department, Westinghouse Electric Corp.; W. L. Parcell, sales manager, Ridge Tool Co.; Francis S. Russell, president, RCS Tool Sales Corp., and Stuart C. Sommer, advertising manager, James G. Biddle Co.

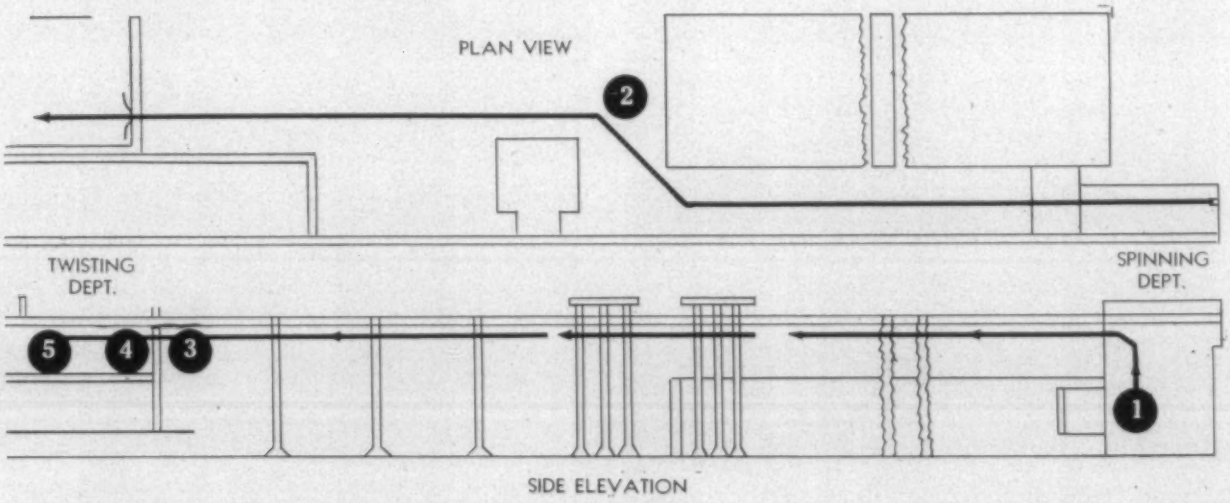
Advanced registration cards may be obtained from Clapp and Poliak, Inc., 341 Madison Ave., New York 17, N. Y.

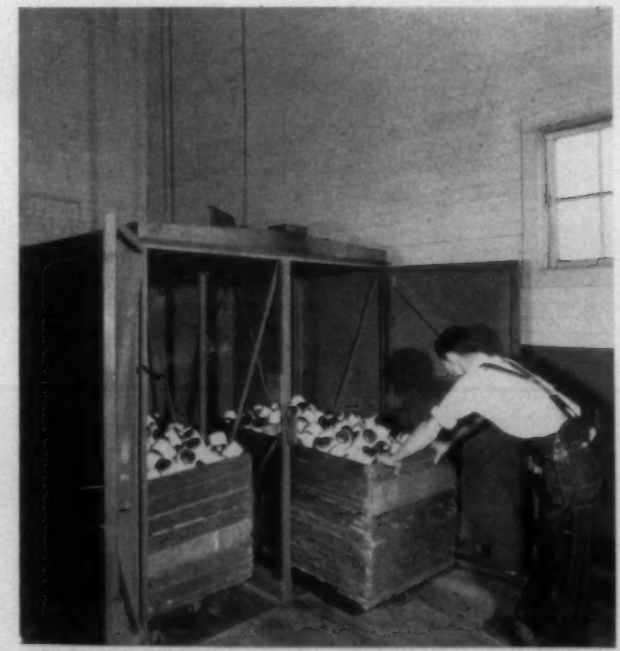
Announcement has been made that Chicago will be the scene of the air conditioning show next Jan. 26-30. Officially known as the 11th International Heating and Ventilating Exposition, it will be held in the International Amphitheatre under the auspices of the American Society of Heating and Ventilating Engineers in conjunction with the 59th annual meeting of the society. Early space reservations indicate that the display will be another record breaker in point of size.

Erlanger's Tramrail System Saves Time As Well As Mill Floor Wear

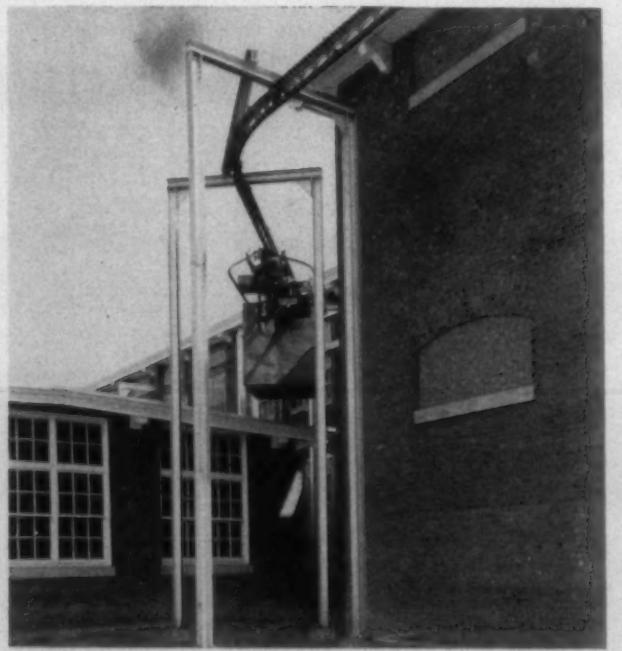
SAVING in time is the principal reason for installing an automatic dispatch system, and in the case of Erlanger Mills, Inc., Lexington, N. C., the entire cost of the equipment was paid for in less than 15 months. But this was not the only saving, since savings in a year from elimination of truck wear on the mill floors are estimated to amount to as much as the cost of this system.

The Cleveland Crane and Engineering Co. Tramrail system at Erlanger handles boxes of bobbins from the spinning department on the first floor of one building to the twisting department on the second floor of another building. The great amount of tedious manual trucking formerly required has been eliminated. Regardless of weather conditions, season of year or time of day or night, the automatic system hauls its loads unhampered. No employees are assigned especially to this work since men in both build-





(1) Loading Tramrail van in spinning department. After "start" button has been depressed, van is hoisted to second floor elevation. When it reaches the carrier, the latter is set in motion.

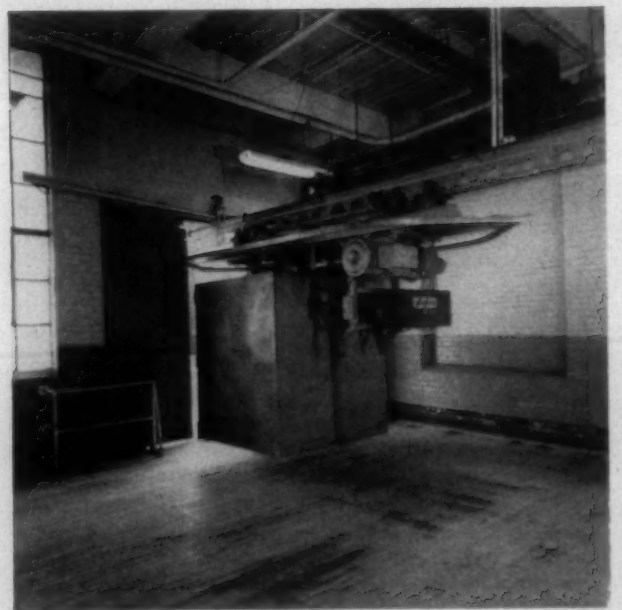


(2) En route between buildings. Note how out-of-the-way space that ordinarily is unusable for any purpose serves as a satisfactory right-of-way for an automatic Tramrail system.

ings can take care of the simple task of loading and unloading the Tramrail van along with their regular work.

The carrier will operate only after the van doors are closed firmly. Then, pushing a button starts it on its way. Building doors are opened and closed automatically. When the carrier reaches its destination, it simply stops and remains in place until loaded or unloaded. Depressing a button returns it to the other building. The accompanying pictures, borrowed from *Cleveland Crane Graphic*, tell the story.

(3) Going through door to inside. After carrier passes through, door closes automatically.



(4) Entering twisting department on second floor. Pronged guards on carrier open the building doors.

(5) Carrier stops automatically. After it has been reloaded with empty trucks, pressing a button returns it to spinning department.

Ga. Studies Impact Of Industry On Economy

Carrollton, Ga., the seat of historic Carroll County, has been selected as "A Pattern City for Progressive Georgia." The selection, announced by the Cotton Manufacturers Association of Georgia, climaxed a six-month study of cities and towns over the state. The research was undertaken to determine the impact of industry—the cotton textile industry in particular—upon the Georgia economy, and to study the contributions of communities in this state to the progress of textile manufacturing.

Carrollton was chosen as a "pattern city" for progress, association officials announced, because its important textile industry is balanced by a diversity of other manufacturing and agricultural enterprises. J. M. Cheatham of Griffin, president of the Cotton Manufacturers Association of Georgia, and head of Dundee Mills, said Carrollton was cited for the honor after studies had been made of a dozen other areas in the state which had also contributed significantly to the progress of the textile industry.

One major disclosure of the investigations, said J. R. Jolly, assistant manager of the Atlanta office of American Thread Co. and chairman of the association's public relations committee, was that "an extremely close interrelationships exists between Georgia's basic textile industry and its over-all economic progress." More than 110,000, on an annual average, are employed in textiles in Georgia.

Conclusions of the study, Mr. Jolly said, were drawn from an intensive investigation into the Carrollton area's economic status and progress in recent years, its governmental structure, its pattern of growth, its agricultural and industrial operations, recreational, educational and allied facilities and its potentials for the future.

The special association subcommittee directing the study was headed by Alvin S. Davis, director of industrial relations for Callaway Mills Co., LaGrange, who said the pattern of progress and growth uncovered in Carrollton was closely paralleled in at least a dozen other textile communities in the state.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

David F. Edwards *(at left above)*, president of Saco-Lowell Shops since 1927, has been elected chairman of the board of directors and Malcolm D. Shaffner *(at right above)*, formerly executive vice-president, has been elected president to succeed Mr. Edwards. Besides his responsibilities as chairman of Saco-Lowell Shops, Mr. Edwards has many other continuing interests in fields of business and education. Mr. Shaffner joined Saco-Lowell in 1933. He was elected secretary in 1944, treasurer in 1946, and vice-president and a director in 1950. He is also president and a director of the company's wholly-owned subsidiary, Pawtucket Spinning Ring Co. . . . Other organizational changes at Saco-Lowell follow: James L. Truslow *(at left below)*, vice-president, has been named executive assistant to the president, where one of his principal responsibilities will be to maintain close liaison between the research and development, manufacturing and sales activities of the company. Mr. Truslow joined the company in 1949. Elmer J. McVey *(at right below)* was elected a vice-president

and relinquishes the duties of general factory manager to become associated with W. Frank Lowell, the company's vice-president in charge of sales. Mr. McVey has been with Saco-Lowell since January, 1950. . . . J. Arnold Kiely, Saco-Lowell's comptroller since 1947, was elected a vice-president and will be responsible for and have full authority in directing the manufacturing activities at Biddeford and Saco, Me. Douglas H. Sears, assistant comptroller, was elected to succeed Mr. Keily as comptroller of the company.

Edgar L. Henderson, Jr., chief accountant of West Point (Ga.) Mfg. Co., has been elected secretary of the company. Mr. Henderson, who joined the company in 1934 as an employee in the cashier's department, also was elected secretary of three subsidiaries of the parent company: Dixie Mills, Inc., LaGrange, Ga.; Columbus (Ga.) Mfg. Co.; and Equinox Mill, Anderson, S. C.; also secretary of Lanett (Ala.) Bleachery & Dye Works.

A. Keith Pooser, who was resident engineer for J. E. Sirrine Co. which had charge of construction of the new finishing plant for American Thread Co. at Sevier, N. C., has left Sirrine to become plant engineer for American Thread at Sevier. George Brown will be chief electrician in the maintenance department of the Sevier plant. . . . Walter C. Saturday has been promoted from overseer of twisting to assistant superintendent at the Tallapoosa, Ga., plant of American Thread Co. Frank Jenkins has been promoted from shift foreman of twisting to succeed Mr. Saturday as overseer and in turn has been succeeded as shift foreman by Bill Dawson.

Carroll M. Campbell *(at left below)*, Greenville, S. C., has been appointed Southern manager in charge of Southern sales operations for U S Bobbin & Shuttle Co.,

Lawrence, Mass., and Frank Aiken *(right)*, also of Greenville, has been appointed executive engineer for the comany. Mr. Campbell will make his headquarters in the firm's recently-opened sales office in Greenville. A graduate of Philadelphia Textile Institute, Mr. Campbell spent 14 years in the manufacturing end of the textile industry, primarily with Union Bleachery, Greenville, and Woodside Mills at Simpsonville, Fountain Inn and Liberty, S. C. For the past few years he has been general manager of the lubrication division of New York & New Jersey Lubricating Co. Mr. Aiken, a graduate of Furman University, has spent 20 years in the textile industry, chiefly with Slater Mfg. Co., several of the Deering-Milliken mills, and the Verney Corp. After working several months with the firm's research and manufacturing staff in Lawrence, Mass., Mr. Aiken will make his headquarters in Greenville with Mr. Campbell.

John Crowther has been named assistant sales manager of Stauffer Chemical Co., New York. Mr. Crowther has been associated with Stauffer for seven years and was director of Eastern division research, the main offices of which are at Chauncey, N. Y. He is a member of the American Institute of Chemical Engineers, Commercial Chemical Development Association, and the Chemists' Club.

Winthrop Whipple has been appointed manager of the Indian Head Division of Textron Southern, Inc., Anderson, S. C. This division includes the Toxaway Plant and Gossett finishing plant, both at Anderson. Mr. Whipple formerly was general superintendent of sheeting and blanket operations for Textron, Inc., at Nashua, N. H., which closed down in December, 1951.

Wayne Lewison, formerly manager of the Beebe River, N. H., plant of the Draper Corp., has been transferred to Hopedale, Mass., as manager of the Draper bobbin division. The bobbin division is comprised of plants at Beebe River, Guilford, Me., and Tupper Lake, N. Y. . . . Sam Hall has been appointed resident manager of the plant at Beebe River.

Alexander Ross, a native of Greenville, S. C., has been promoted from assistant manager to succeed Harmon Howorth as manager of the Celriver Plant of Celanese Corp. of America at Rock Hill, S. C. Mr. Howorth has been promoted to a new position in the company's textile division and is stationed in New York.

Harold A. Sweet has been named director of the industrial division of Refined Products Corp., Lyndhurst, N. J., manufacturer of organic chemicals. Before joining Refined Products Corp., Mr. Sweet was in the sales and sales development department of General Dyestuff Corp., a division of General Aniline & Film Corp. He was one of the pioneers in the sales development of synthetic detergents, wetting agents and emulsifiers. Mr. Sweet

is a member of the American Chemical Society, a Fellow in the American Institute of Chemists and a member of Alpha Chi Sigma.

Carl Graeflin is a recent addition to the sales force of the fiber glass division of Libbey-Owens-Ford Glass Co. and will work out of the firm's New York office. Before joining L-O-F Mr. Graeflin was for more than 23 years with Hess, Goldsmith & Co., Inc., New York, and closely associated with its plant at Wilkes-Barrie, Pa., in the development of glass cloth. A native of Basel, Switzerland, he was educated at the textile division of the Allgemeine Gewerbe Schule in his native city, and before coming to the United States was associated with Sarasin Sons, Ltd., Basel, as textile technician.

Three new assistant division superintendents recently were named at Dan River Mills, Danville, Va. D. C. Boy, Jr., formerly administrative assistant to the assistant general superintendent, has been promoted to assistant superintendent of the Riverside Division; W. R. Fiske, formerly technical superintendent at Schoolfield Division 3, was promoted to assistant superintendent of that division; and H. C. Clark, has been promoted from superintendent of dressing and dyeing at Schoolfield Division 2, to assistant superintendent of that division. . . . Henry W. Smith, previously superintendent of No. 2 and 5 carding at Riverside, has been appointed executive assistant to R. M. Stephens, assistant general superintendent, succeeding Mr. Boy. . . . Other promotions include: L. Clyde Sheehan, from assistant to the general overseer of No. 5 dye to department overseer of that department; John C. Lackey, from trainee to second hand in 4B weave.

V. Wellborn Cook recently joined the American MonoRail Co. as sales engineer and will work out of the Charlotte, N. C., office, covering North Carolina, selling the complete line of material handling equipment and automatic cleaning equipment. Mr. Cook is a graduate of Clemson (S. C.) College and for the past five years has been connected with SKF Bearings as a sales and service engineer.

H. L. Pruitt, general manager of Haynsworth Mills, Anderson, S. C., and recognized as one of the foremost authorities on weaving in the Southern textile industry, retired from his position Aug. 1. This is the second time Mr. Pruitt has retired. In 1944, he stepped down from a supervisory position at Dan River Mills. In 1945 he was persuaded to take over as superintendent of the then embryo Ottaray Textiles in Anderson, which he transformed into a modern unit. In January, 1949, the new Haynsworth Mills were completed and Mr. Pruitt was named general manager of both Haynsworth and Ottaray which operated as separate weaving units until early 1952 when machinery at Ottaray was transferred to a twice-expanded Haynsworth plant. Beginning at the age of nine, Mr. Pruitt spent 56 years in the textile industry, working in mills in Virginia, South Carolina and Alabama. He is succeeded by Harold Mason.

Charles H. Burns recently joined Fulton Bag & Cotton Mills, Atlanta, Ga., as controller. Mr. Burns, a graduate of Northwestern University, was recently connected with the New York office of Price Waterhouse & Co. and was formerly treasurer of the Trailmobile Co. of Cincinnati, Ohio. He is a member of the Controllers Institute of America.

John H. Spencer *(left)* has retired from his position as manager of the Greenville, S. C., office of Barber-Colman Co., a position which he has held for 45 years. Fred D. Taylor, for the past 14 years manager of the Framingham, Mass., office, has been named manager at Greenville succeeding Mr. Spencer. Lester L. Lideen of the company's home office at Rockford, Ill., has been named manager at Framingham replacing Mr. Taylor. . . . Other recent personnel changes at Barber-Colman include: William P. Turner, formerly sales engineer at the Framingham office, has been transferred to Rockford and will be export sales manager for textile machinery. Ralph W. Cotta has been transferred from the Rockford office to the Framingham office as sales engineer for textile machinery. K. C. Morrison, who has been sales engineer for textile machinery at Framingham, has been transferred to the company's door division and will have charge of sales and manufacture of Barber-Colman overhead type doors and electric operators in New England.

H. B. Campbell has been promoted from assistant superintendent of the Abney Mill plant at Woodruff, S. C., to superintendent of the Abney plant at Courtney, S. C. D. E. Ross, formerly night superintendent, succeeds Mr. Campbell as assistant superintendent at Woodruff and James Tiller, former night overseer of weaving, in turn succeeds Mr. Ross as night superintendent.

Carl H. Robinson, deputy director of the cotton branch, Production and Marketing Administration, retired July 31 after 32 years of service in the U. S. Department of Agriculture. A career employee, Mr. Robinson's early work in the department was with the crop reporting service, Bureau of Agricultural Economics. For the past 16 years he has been closely identified with the department's cotton marketing and research activities. . . . E. A. Smyth is resigning as executive officer of the Charlotte (N. C.) District of the Office of Price Stabilization, effective Sept. 1. His plans have

not been definitely determined. Mr. Smyth served as chief of the textile section of the Richmond, Va., regional office of O.P.S. from May 1, 1951, to last June 1. Before, he was vice-president and Southern sales manager of H. & B. American Machine Co., and formerly president of Berkeley Mills, Inc., Balfour, N. C. . . . Thomas P. Hayden, industrial specialist in textiles in the Office of Program and Requirements, Defense Production Administration, is resigning from government work after 29 years service in the field of textiles. Mr. Hayden, who will act as a Washington professional consultant and representative in the textile field, was a commodity specialist in textiles with the United States Tariff Commission and was chief of the dye and finishing section, program branch, in the War Production Board.

W. R. (Dick) Peacock is a recent addition to the sales staff of Sonoco Products Co., Hartsville, S. C., manufacturer of paper cones, tubes, spools and other paper specialties. Mr. Peacock is covering the territory comprising Alabama, Arkansas, Oklahoma, Texas, Mississippi, Louisiana and a portion of Tennessee. He is a graduate of the School of Textiles at North Carolina State College and was assigned his territory after a training period at Sonoco's plant in Hartsville.

Wells Rogers, assistant superintendent of the Efird plants of American & Efird Mills, Inc., at Albemarle, N. C., recently was elected president of District 6 of the North Carolina School Board Association. Mr. Rogers served as secretary of the district association before being made president.

Aubrey Mauney, secretary and treasurer of Kings Mountain (N. C.) Mfg. Co., accompanied by his wife and daughter, attended the Lutheran World Federation Convention held in Hannover, Germany, July 24-Aug. 3. At this convention Mr. Mauney was alternate delegate for the United Lutheran Church in America and official representative of the Brotherhood of the United Lutheran Church in America, of which he is secretary and a member of the executive committee.

Dewey H. Worthy, master mechanic at Dixie Mills, Inc., LaGrange, Ga., recently completed 40 years of service with the company.

William J. Coward, a veteran of 45 years in the textile industry and head of the cotton carding department at Dyersburg (Tenn.) Cotton Products Co. since the plant started operations, retired Aug. 1 He will make his home at Oswego, N. Y. . . . Jack Todd of Dyersburg, a graduate of Georgia Tech, succeeds Mr. Coward as head of the cotton carding department.

John Harvey has been promoted to assistant manager of Central Yarn & Dyeing Co., Inc., Gastonia, N. C.

Tom Boyd, formerly associated with Mooresville (N. C.) Mills, has been named

head chemist in the dyehouse laboratory of Valdese (N. C.) Mfg. Co. At Valdese Mr. Boyd succeeds Dr. Julian Hershfeld, who left Valdese to take a position with Dan River Mills.

Claude L. Hayden recently has been named assistant sales manager of American Enka Corp. Mr. Hayden, who has been with the company for about 20 years, has been serving as manager of advertising and promotion.

John A. Sibley, chairman of the Trust Co. of Georgia board and a director of West Point (Ga.) Mfg. Co., recently was elected a director of Retail Credit Co., Atlanta, Ga. Mr. Sibley holds directorates in a number of corporations.

Paul Murphy has been promoted to overseer of weaving at Jackson Mills, Iva, S. C., succeeding E. L. Bolding, who resigned to accept another position. Mr. Murphy has been associated with Jackson Mills since 1936. . . . Other promotions at Jackson include: Jack Belcher, loom instructor, promoted to second hand in the weave room; and Pat Hawkins, also promoted to second hand in the weave room.

John W. Arnall, assistant superintendent of the finishing mill of Fieldcrest Mills, Spray, N. C., has been given the additional responsibility of the supply room, the bleaching-cloth finishing and piece dyeing departments. A graduate of Georgia Tech, Mr. Arnall has been with Fieldcrest since 1945. His previous associations include Dan River Mills and Eagle & Phenix Mills. . . . Marvin E. Clifton, formerly a second hand in the bleachery, has been promoted to assistant foreman in the sheet cutting and sewing department. He has been with the company since 1942. . . . W. H. Suit, with Fieldcrest since January, 1948, has been made director of the standards department. Before joining Fieldcrest Mr. Suit was for some years associated with the Du Pont Co.

Eric J. Monaghan, one of the country's foremost dye experts, is retiring Aug. 31 after a 35-year career with E. I. du Pont de Nemours & Co., Inc. Born in Magdeburg, Germany, the son of an attache at the American Embassy in Berlin, Mr. Monaghan spent his early years in Germany. He and Mrs. Monaghan now reside at the Penn Sheraton Hotel in Philadelphia, Pa.

George G. Merritt, who has been paymaster of the Sauquoit Plant of Standard-Coosa-Thatcher Co. at Gadsden, Ala., has been promoted to personnel supervisor and office manager at Gadsden.

Robert A. McLaughlin has been appointed director of sales for Pittsburgh Plate Glass Co.'s new fiber glass division. Associated with the company's merchandising division since 1940, Mr. McLaughlin had served as a sales representative at the Chicago warehouse and as manager of the firm's Columbia, S. C., branch. During the past five years, he has been manager of the rapidly expanding Mineola, N. Y., warehouse. . . . Appointment of Dr. George S. Bachman as director of research for Pittsburgh's new fiber glass division has also been announced. Dr. Bachman joined Pittsburgh Plate Glass Co. during 1947 and since then has been associated with the glass division's research laboratories at Creighton, Pa. Prior to his association with Pittsburgh Plate, Dr. Bachman had served as a ceramic engineer with Owens-Illinois Glass Co.

W. E. Prescott, purchasing agent for Kendall Mills, has been elected a vice-president of the new Mecklenburg Kiwanis Club at Charlotte, N. C. Reed Dillingham of Dillard Paper Co. is a member of the club's board of directors.

W. E. Smith of Charlotte, N. C., has resigned as Southern manager for Borne Scrymser Co. to join the petro chemical division of Atlantic Refining. He will cover the Southeast for Atlantic out of Charlotte.

John Tillett, Jr., who in recent months was associated with Ira L. Griffin & Son and prior to that was with Pneumafil Corp. and Uster Corp., is now associated with Fulbright Laboratories, Inc., of Charlotte, N. C.

Recent personnel changes at plants of J. P. Stevens & Co., Inc., follow: John R. Mullikin has been appointed personnel manager for the following four plants—Apalache, Greer and Victor, located at Greer, S. C., and Monaghan at Greenville, S. C. Until further notice Mr. Mullikin will continue as personnel manager for Piedmont (S. C.) Mfg. Co. and Jonesville (S. C.) Mills, divisions of the Dunean Group of the Stevens company. . . . James L. Hill, employment manager of the Victor Plant has been transferred to Monaghan as employment manager, a newly-created position at that plant. Fred Snoddy, athletic director for the Victor Plant at Greer, has been transferred to the position of employment manager of that plant. . . . Frank W. Walsh, formerly superintendent at Jonesville Mills, has been transferred as superintendent to the Clemson, S. C., plant of the Utica & Mohawk Cotton Mills Division succeeding Winder Gary, resigned. P. W. Nipper has succeeded Mr. Walsh as superintendent at Jonesville. . . . L. A. Deal, plant manager of Slater (S. C.) Mfg. Co., has been promoted to head of quality control of the Carter Fabrics division with offices at Greensboro, N. C. Harlan C. Pruitt of Greensboro is the new plant manager at Slater succeeding Mr. Deal.

Thomas O. Moore, vice-president and general counsel of P. H. Hanes Knitting Co., Winston-Salem, N. C., recently was appointed to serve on the industrial relations committee of the National Association of Manufacturers.

Boyce C. Bond of Philadelphia, Pa., has joined Pittsburgh Coke & Chemical Co.'s newly-organized fine chemicals division as sales supervisor. He was associated with General Dyestuff Corp. for 19 years. In his new post, Mr. Bond will serve the textile trade in both a technical and sales capacity. His office will be at Kenilworth Road, Villanova, Pa. Mr. Bond recently developed and patented the Bond machine, a new universal type continuous dyeing machine. A graduate of Georgia School of Technology, he is a charter member of the American Association of Textile Chemists and Colorists.

Richard H. Shaffner has been appointed sales engineer for Prufcoat Laboratories, Inc., a Cambridge, Mass., manufacturer of vinyl and other synthetic resin protective coatings for use in chemical and other process industries. Employed for the past ten years as an operating supervisor and in the engineering department of the Hooker Electrochemical Co., Mr. Shaffner is well qualified from long, first-hand experience with difficult industrial corrosion problems.

Dr. John B. Miles, former member of the scientific team that developed the first atomic bomb, has been named textile development engineer for the research and development department of the Chemstrand Corp., Decatur, Ala. In his new assignment Dr. Miles will be in charge of important projects dealing with development and use of Acrilan acrylic fiber, and Chemstrand nylon and other new fibers. Dr. Miles was assistant secretary and technical director for Delaware Research and Development Corp., New Castle, Del., and before that he served for 21 years in key positions in research and development of nylon for E. I. du Pont de Nemours & Co., Inc. . . . Other recent additions to the Chemstrand research and development staff include: Drs. Carlyle J. Stehman, William T. Dye, Jr., Arthur B. Beindorff, and Messrs. James W. Stoops, Howard A. Chamberlin, Garnett L. Wade, Jr., and Daniel L. Worth.

Col. Jack F. Hudson has been named chief of the purchasing division, Philadelphia Quartermaster Depot. He replaces Col. Harvey A. Johnson, who was transferred overseas. . . . Maj.-Gen. Howard L. Peckham, at present acting Deputy Quartermaster General in Washington, is scheduled to take command of the Fort Lee, Va., Quartermaster Center in September.

C. L. Peterson has been appointed general sales manager of the industrial division of Minneapolis-Honeywell Regulator Co. succeeding W. H. Steinkamp. Mr. Peterson has been regional manager for Honeywell's Mid-West region in Chicago since January, 1950.

Ernest Nathan has resigned as vice-president of Sun Chemical Corp. and as chairman of the chemicals group comprising the Warwick wax subsidiary and Warwick Chemical Division of Sun Chemical. . . . Donald J. Eccleston and Ira S. Hurd, general manager and general sales manager, respectively, of the Warwick Chemical Division, assumed the duties left vacant by the resignation of Mr. Nathan.

Dr. S. David Bailey, formerly acting chief of physics of the research and development laboratories at the Philadelphia Quartermaster Depot, has been appointed chief of the pioneering research division of the depot. He replaces Dr. Ralph G. H. Siu, who will continue as associate technical director, research and development division, Office of the Quartermaster General.

OBITUARIES

F. Gordon Cobb, 70, retired textile executive of Miami, Fla., died July 29 at a hospital in Charlotte, N. C. Mr. Cobb

became ill while enroute to a vacation in the western North Carolina mountains. Mr. Cobb was well known in the Carolinas where he spent most of his active career in

the industry. His associations include Pelzer (S. C.) Mfg. Co., Belton (S. C.) Mfg. Co., Merrimac Mills, Huntsville, Ala., Inman (S. C.) Mills, F. W. Poe Mfg. Co., Greenville, S. C., and Springs Cotton Mills as general manager of its Lancaster, S. C., plant. He served as president of the Southern Textile Association in 1919-1920 and as secretary-treasurer of the S.T.A. in 1925-26. Mr. Cobb had made his home in Miami for the past six years where he was director of the Miami Shores Chamber of Commerce. Surviving are his wife and two sons.

Lammot du Pont, 71, former president of E. I. du Pont de Nemours & Co., and youngest of the three brothers who led the 20th century development of the 150-year-old chemical company, died July 24. Lammot du Pont was the eighth member of the du Pont family and the third brother in succession to become head of the chemical company founded by Eleuthere Irenee du Pont de Nemours, his great-grandfather, in 1802. To Lammot du Pont, youngest of the trio, fell the task of rounding out and co-ordinating what, in little more than a decade, had become one of the most complex communities of chemical manufacturing in the Americas. Between 1926, when Mr. du Pont become president of the company, and May, 1940, when he resigned as president to succeed his brother, Pierre, then 70, as chairman of the board, expenditures for the operation of Du Pont research laboratories were increased almost sevenfold. This unprecedented expansion, effected in the main during general business depression, carried the company far ahead among industrial organizations pioneering in new scientific fields. Results included such outstanding developments as a man-made rubber compounded from coal, limestone, and salt; the synthesis of nylon; and other research achievements that, in recent years, were accounting for more than 40 per cent of the Du Pont business. Mr. du Pont married four times. His first wife, Natalie D. Wilson, of Wilmington, Del., died in 1918, leaving three sons and five daughters. They are: Lammot, Jr., Pierre Samuel du Pont, III, and Reynolds; Mrs. George P. Edmonds, Mrs. James M. Faulkner, Mrs. Esther du Pont Weir, Mrs. Richard E. Riegel, and Mrs. George W. Collier. His second wife, the former Bertha Taylor, of Reading, Pa., died in 1928. A third marriage to Mrs. Carolene Hynson Stollenwerck, of Scarsdale, N. Y., ended in divorce. In 1933, he married Margaret A. Flett, of Racine, Wis. There are two sons, David Flett and Willis Harrington du Pont.

W. H. Ennis, Sr., 69, a former overseer of carding and for a number of years a sales representative handling textile supplies, died recently at his home in Charlotte, N. C. Surviving are his wife, a daughter and two sons.

Eliot Farley, 68, a director and chairman of the board of Textron, Inc., Providence, R. I., died July 31 at his home in Needham Heights, Mass. Mr. Farley figured prominently in the founding of Special Yarns Corp. in 1924, the predecessor company to Textron. Mr. Farley is survived by his wife, a daughter and a brother.

John R. Howe, prominent cotton man of Gastonia, N. C., died July 21 after a brief illness. Mr. Howe began his textile career with his uncle, the late G. W. Ragan who founded the Arlington and Ragan Mills. Later he was associated with the Gray-Separk mills and Textiles, Inc. More recently he was associated with Groves Cotton Co. and Groves Thread Co. Surviving are three sons and four daughters.

G. H. Jones, 74, retired textile executive of Geneva, Ala., died July 28 of a heart attack. A native of Woodruff, S. C., Mr. Jones was well known in textile circles in South Carolina, Alabama and Tennessee, having been active for 50 years prior to his retirement a few years ago. He served for a time as president of Jones Mfg. Co., Humboldt, Tenn., and his son, W. R., now heads that concern. Surviving are three other sons and two daughters.

George R. Kay, 55, superintendent of spinning at Cherokee Textile Mills, Knoxville, Tenn., died July 24 at his home in Knoxville. Mr. Kay was well known throughout the textile industry having had a broad and varied experience in the South as well as New England. He was a native of England. During his career he worked for 18 textile plants in the U. S. and Canada and for eight European concerns located in Germany, Austria, Switzerland and Czechoslovakia. Surviving are his wife, a daughter, a stepdaughter, two sons and a stepson, and one brother.

H. G. Mayer, 71, retired textile machinery salesman of Charlotte, N. C., died July 29 at a hospital in Charlotte. Mr. Mayer represented Proctor & Schwartz, Inc., and Textile Finishing Machinery Co. for more than 30 years, until his retirement about ten years ago. Surviving are two sisters and a brother.

Allen L. Mills, Sr., 64, general manager and treasurer of Paola Cotton Mills, Inc., Statesville, N. C., died suddenly July 29 at a hospital in Richmond, Va. Mr. Mills became ill while enroute to Philadelphia on a business trip. Mr. Mills is survived by his wife, one son, five daughters, and a brother, Lonnie N. Mills, who is president of Paola.

James R. Morrison, 53, vice-president, treasurer and a director of Morrison Machine Co., Paterson, N. J., textile machinery concern, died July 25 at a hospital in Paterson. Surviving are his wife, a daughter, his father, a brother and a sister.

David A. Rudisill, 74, secretary of the Rhyne-Houser Mfg. Co., Cherryville, N. C., died recently after an illness of several months.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

DURHAM, N. C.—Erwin Mills, Inc., will spend $2,650,000 on a modernization program at plants in Durham, Erwin and Cooleemee, N. C. About $1,250,000 worth of new X-2 looms will be installed in the No. 5 Mill at Erwin. New humidifying and air-changing equipment also will be installed in the No. 5 Mill weave room. In Durham new dyeing equipment will be installed at the bleaching and finishing plant to permit the firm to manufacture colored sheets for the first time. Other improvements at Durham include replacement of obsolete equipment with new roving machines at the No. 1 and No. 4 Mills, new attachments for spinning frames at the No. 1 Mill and installation of new combers for the No. 4 Mill to convert a portion of that plant's production to combed yarn sheeting.

SHELBY, N. C.—Employees of Shelby Cotton Mills were treated to a barbecue dinner and square dance Aug. 9 at the Shelby Armory, in celebration of the completion of more than 3,000,000 man-hours without a lost-time accident. The last lost-time accident at the plant occurred April 14, 1949.

DYERSBURG, TENN.—Two of the three boilers at the steam plant of Dyersburg Cotton Products, Inc., have been converted for the use of natural gas. The plant engineer estimates that the plant will use about 300,000 cubic feet of gas each day. This is an estimated ten per cent of the city's total allocation each day.

FAYETTE, ALA.—An addition, expected to increase production by about one-third, is now under construction at the Fayette Plant of Alabama Mills, Inc. The addition is being made to provide space for installation of twisters and other special machinery for the production of plied and specialty yarns. Previously these yarns have been bought from outside sources.

GASTONIA, N. C.—Firestone Textiles, a unit of Firestone Tire & Rubber Co., is replacing some of its cotton spinning and preparatory equipment with rayon processing machinery which will be used in the production of rayon tire cord. The bulk of the plant's production has been on cotton tire cord. The conversion is expected to be completed about Sept. 1.

GASTONIA, N. C.—Controlling stock interest in Trenton Cotton Mills, Inc., said to be the oldest textile plant in operation in Gastonia, has been purchased by P. W. Abernethy of Newton, N. C., and A. Alex Shuford, Jr., of Hickory, N. C., prominent textile executives. Trenton Cotton Mills utilizes 12,618 spindles and employs about 225 persons in the production of combed peeler yarns, 30s and 50s.

SIMPSONVILLE, S. C.—The local plant of Woodside Mills has just had a large addition made, plus a considerable amount of modernization work. This addition provides space for a new weaving room and a new spooler room together with re-roofing of the existing room and other work at the plant in conjunction with this expansion program represent a gross investment of approximately a quarter million dollars. This is part of the $10 million modernization expansion program announced by Woodside several years ago. Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., is general contractor for this project.

WILSON, N. C.—Fire July 27 caused damages estimated at $25,000 at Shelton Looms, a unit of Sidney Blumenthal & Co., Inc. Shelton Looms manufactures plushes and velours.

TALLAPOOSA, GA. — The spinning and winding departments of the American Thread Co. plant here have been awarded a certificate of merit for having completed 300,000 man-hours of work without a lost-time accident.

GREAT FALLS, S. C.—Employees of the No. 1 Mill of Republic Cotton Mills, a division of J. P. Stevens & Co., Inc., recently completed a year of work without a lost-time accident. Employees of Mill No. 3 and No. 2 have worked 325 days and 130 days, respectively, without a lost-time accident.

ANDERSON, S. C.—The building here formerly occupied by Ottaray Textiles, Inc., a division of Woodside Mills, has been offered for sale. Ottaray still exists as a separate unit of Woodside, but operations have been moved to the enlarged Haynsworth Mill, also a Woodside unit.

GAFFNEY, S. C.—Gaffney Mfg. Co. celebrated the 60th anniversary of its founding Aug. 16 with a picnic and outing for employees and friends. Gaffney Mfg. Co. is a division of Deering, Milliken & Co. The plant currently utilizes 64,088 spindles and 1,422 looms in the production of wide print cloths and broadcloths. The mill provides employment to about 750 men and women and its annual payroll runs to about $2,500,000.

SPARTANBURG, S. C.—Walter S. Montgomery, president and treasurer of Spartan Mills, announced recently that a program to award three college scholarships annually has been established for the firm's Spartan and Beaumont Divisions in Spartanburg and for the Startex (S. C.) Division. The scholarships will be for girls only. The awards, one from each of the mills, will be full four-year scholarships to Converse College, Spartanburg, with a value equivalent to the tuition of a day student at the school.

GASTONIA, N. C.—Rain and hail storms combined with high winds recently damaged three Gaston County textile plants. The roof of a Burlington Mills plant at Cramerton was damaged, but mill spokesmen said there was no production delay. A section of the Gastonia Weaving Co. roof was lifted by the winds. Both mills said damage was not severe. The shipping department of Threads, Inc., received the hardest blow. A part of the roof was ripped from the building and yarn and other stock waiting to be shipped were damaged by water.

PIEDMONT, S. C.—Three modern playgrounds are nearing completion here for the use of the peole of Piedmont and the surrounding area. The playgrounds are being established by J. P. Stevens & Co., Inc., which operates Piedmont Mfg. Co. here.

GREENVILLE, S. C.—Following its announcement that projects in Mississippi and Tennessee would be discontinued because these localities have been unable to raise funds to finance these proposed plants, Textron Southern has announced a construction program for the Greenville area totaling in the neighborhood of five million dollars. Included in this area are a new warehouse

SCALE MODEL OF THE CHEMSTRAND CORP. NYLON FILAMENT YARN PLANT at Pensacola, Fla., shows the plant office building and textile spinning area *(lower left)* and the chemical area *(upper right)* where raw materials will be produced. The only integrated nylon plant of its kind in this country, it will consist of nearly 30 separate structures required in a project of this scope.

valued at nearly $250,000 and a $2,500,000 tricot knitting plant, both located near Williamston, S. C. The new Peerless Mills plant, recently purchased by Textron Southern is also receiving a major addition that will nearly double its capacity. General contractor for all these projects is the Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., builders of the original Peerless Mills plant.

THOMASTON, GA. — Installation of new Draper X-L looms in the No. 1 weave department at the Thomaston Division of Thomaston Mills is nearing completion. Fifty-six of the present looms have been moved to the Peerless Division to replace obsolete machines. The weave room has been re-floored and the remaining looms relocated to provide space for the new looms.

GASTONIA, N. C.—In a move that makes possible substantial savings in shipping costs for its customers in the South, Zelta Yarn Co., New York, has established new facilities at Gastonia for the manufacture, warehousing and shipment of its hand knitting yarns, it was announced recently by Howard Bergman, general manager. "The new facilities, which will manufacture and ship Zelta's complete line of yarns to retail outlets in the South, duplicates the firm's existing plant in New York City," Mr. Bergman said. "As a result, Zelta's over-all capacity will be doubled. Service to Southern customers will be improved further by this expansion," he explained, "because the new facility is close to Zelta's source of raw materials." The firm makes three-ply fingering yarns in imported Zephyr wool, nylon and Dacron.

LEXINGTON, N. C. — Wennonah Cotton Mills Co. celebrated its 66th anniversary with a dinner and dance for employees Aug. 2 at the Lexington Country Club. Service pins and certificates were awarded to 12 employees for having completed ten years with the company, to three for having completed 25 years, and Mrs. Cora H. Koonts was honored for having completed 50 years with the company. Oldest employee, in point of service, is Miss Maggie Earnhart who has been with the company since its founding.

ANDERSON, S. C. — Employees of the Appleton Co. Division of the Dunean Group of J. P. Stevens & Co., Inc., recently completed 1,000,000 man-hours of work without a lost-time accident.

RED SPRINGS, N. C.—In recognition of the outstanding safety record of 6,000,000 man-hours without a disabling accident, employees of the Red Springs Division of Robbins Mills (N. C.) Inc., recently were treated to a chicken dinner. Through the co-operation of every employee and assistance from the safety committee, Safety Chairman Tom Cope and Plant Superintendent C. T. Montjoy, there has not been a disabling accident since March 7, 1949. The employees of this plant are now striving to reach the world's record for a textile rayon mill of 6,292,821 injury-free man-hours so that they may then claim the title of "World's Championship Safety Team." At the time of the celebration, a safety flag with five stars, denoting one million man-hours each, was presented by Liberty Mutual Insurance Co. in recognition of this safety record.

SEVIER, N. C. — The new American Thread Co. plant here is nearing completion and partial operations are expected to begin in September. An estimated 800 to 1,000 people will be employed when the plant reaches capacity operation.

GREENVILLE, S. C.—Production facilities are being expanded at White Horse Mill, a unit of Maverick Mills, Boston, Mass., with the installation of an additional 6,000 new spindles and 120 new looms. Installation of the new equipment will provide employment for an additional 30 to 40 persons.

ALBANY, GA.—A. & M. Karagheusian, Inc., manufacturer of Gulistan carpets, plans establishment of cotton carpet production facilities in Albany. The company has entered into a purchase agreement for the acquisition of properties formerly known as Albany Mfg. Co. George Paules has been appointed manager for the local operation.

CARROLLTON, GA.—A modernization and expansion program currently under way at No. 2 Mill of Mandeville Mills includes construction of a new waste house and installation of vacuum stripping in the card room. The project is expected to be completed by Nov. 1.

KINGSTREE, S. C. — Princeton Worsted Mill's new weaving plant for the production of cloth made of Dacron polyester fiber, known as the Kingstree Division, is scheduled to begin production by the end of August or early in September. Production capacity of the new plant is more than 2,000,000 yards a year. Officials recently announced plans for an addition to the new plant which will add about 6,000 square feet of floor space.

WELDON, N. C.—The former Lancaster Looms, Inc., plant here has been purchased by C. R. Daniels, Inc., of Baltimore, Md. The new owners will utilize the plant's 6,000 spindles and 130 looms for production of flat duck used in the bodies of mill trucks and other materials handling items. Operations will begin early in 1953. Officials of the Daniels firm are: F. J. Trumpbour, president; A. L. Hammond and E. A. Trumpbour, vice-presidents; F. J. Trumpbour, Jr., secretary, H. F. Wilder, treasurer; S. Batther, superintendent; and D. H. Kelly, purchasing agent.

ROCKY MOUNT, N. C.—With merger of Hego Fabrics, Inc., into Robbins Mills, Inc., Rocky Mount Rayon Mills, formerly controlled by Hego, becomes a division of Robbins. The local rayon mill will operate as an independent unit, it is reported. Robbins owns weaving mills in Aberdeen, Raeford, Red Springs and Robbins, N. C., and the Clarksville (Va.) Finishing Co. As

a result of the Hego-Robbins merger, officials state, the company now has a potential valume of about $75 million a year and will rank among the first five sellers of better-priced synthetics. Herman Goodman, founder and president of Hego Fabrics, has been elected a director and executive vice-president of Robbins.

DANVILLE, VA.—Dan River Mills' new finishing plant and warehouse at No. 5 Mill, Schoolfield Division 3, is expected to be completed and in full operation by the end of this year. The new facility was erected at a cost of approximately $4,000,000 and it is being equipped with about $2,500,000 worth of finishing, conveying, storage and shipping equipment. It will enable Dan River to virtually double its production of Wrinkl-Shed fabrics. . . . Dan River is making plans for its 70th anniversary. The predecessor company, Riverside Mill, was established in 1882. At first the mill employed 100 people and had 2,240 spindles and 100 looms. Today there are 12 mills producing cotton fabrics and rayon goods, utilizing 441,000 spindles, 9,800 looms, and 12,500 employees with a payroll of $700,000 weekly.

KINGS MOUNTAIN, N. C. — Burlington Mills Corp. has agreed to donate to the city of Kings Mountain a 31-acre tract for development as a community recreation centerf. Plans call for construction of a civic center and recreation park on the site to cost about $350,000.

BILTMORE, N. C.—Plans for a possible move South, or to some other area where labor costs are more favorable than in New England, were announced recently by Sayles Finishing Co., which operates the Sayles Biltmore Bleacheries here. It is reported that Sayles may transfer some of its Saylesville plant machinery to its Biltmore plant. Declared George E. Sinkinson, president: "We feel that no company should be without a plan that could be put into effect immediately in case it becomes obvious that no reduction in labor cost differential can be made," adding that Sayles is working out such plans.

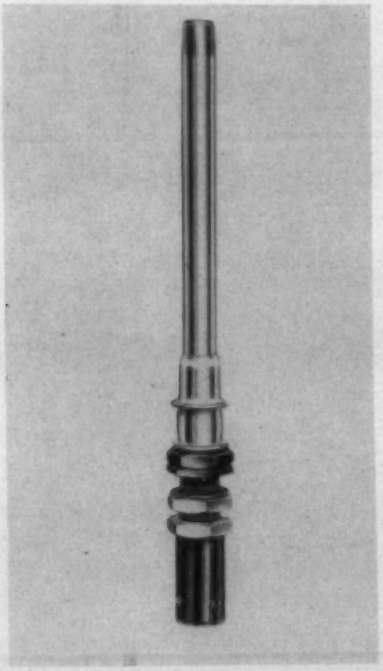
LAGRANGE, GA.—Callaway Mills Co. is now producing knitted nylon laundry net fabrics on a battery of Kaylooms in its Rockweave Plant.

ELBERTON, GA.—The name of the local division of United Merchants and Manufacturers, Inc., has been changed from United Rayon Mills to Elberton Mills.

For the Textile Industry's Use

EQUIPMENT – SUPPLIES – SERVICES – LITERATURE

Hartford Ball Bearing Spindle



Entry into the textile machine products field has been announced by Hartford (Conn.) Machine Screw Co., Inc., a division of Standard Screw Co. For many years Hartford has been a supplier of equipment parts to textile machinery manufacturers, and for the past several years has been a principal source of anti-friction spinning and twisting spindles.

An initial product of Hartford will be the Hartford ball bearing spindle for spinning and twisting (see illustration). This was formerly the Century spindle, produced by Hartford for H & B American Machine Co., of which there are now 92,000 in use. There will also be a Hartford roller bearing spindle available.

A Southern Division for sales, engineering and development has been established at 110 West McBee Ave., Greenville, S. C. A. E. Winslow, formerly manager of manufacturing research, J. P. Stevens & Co., Inc., has been appointed manager, Hartford Machine Screw Co., Southern Division. Mr. Winslow is well known in the textile field and has for many years been associated with textile machine builders. Through Hartford's Southern Division, engineering service will be offered, as will be aid in development of new equipment and improvement of present equipment. *(H-1)*

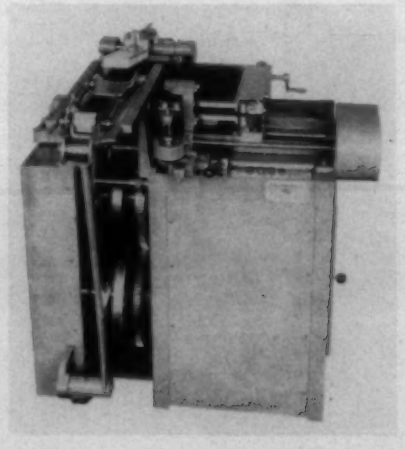
Soft Package Attachment

Universal Winding Co., Cranston, R. I., has available a soft package attachment for winding synthetic yarns onto 1⅞-inch dye tubes at spindle speeds up to 1,050 r.p.m. on No. 50 precision winding machines. The attachment is particularly suited for winding dye packages that go into high pressure dyeing systems, the company states. It permits very close control over the winding tension, and as a result, soft packages of proper density can be obtained from every spindle. Delivery of the yarn should be from cones or an equally free delivering type of supply. Starting tension can be as low as two grams, providing the yarn delivers freely enough from the supply package.

The soft package attachment consists of a roller bail assembly, a "close to package" type guide, a lightweight tension lever and a spring arrangement for adjusting the pressure. The lightweight tension lever is designed to provide extremely accurate tension adjustments, and since the roller bail, instead of the guide, contacts the surface of the package during winding, pressure is distributed evenly over the entire length of the yarn mass wound on the dye tube.

The "close to package" type guide brings the delivery point of the yarn as close as possible to the surface of the package and assists in accurately laying the yarn onto it. This attachment can easily and inexpensively be applied to No. 50 winding machines presently equipped with pineapple coning attachments, for, the traverse frame back and the roller bail assemblies already on these machines can be used by removing the rest of the pineapple coning attachment. The company recommends using the soft pressure attachment on No. 50 winders equipped with a 2½ wind gear gain mechanism. *(H-2)*

Schlumberger Analyzer



An automatic top testing machine manufactured by N. Schlumber & Cie, Guebwiller, Haut-Rhin, France, for determining

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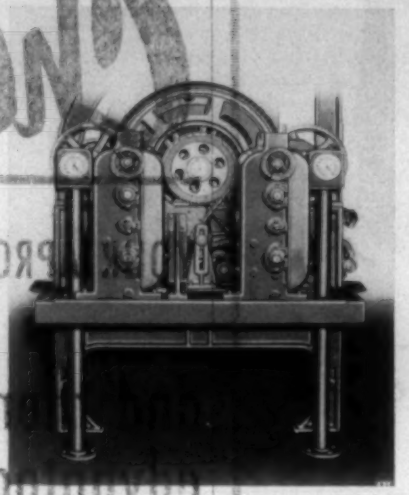
the fiber length in a wool, worsted or synthetic sliver is being introduced in the United States by Texplant Corp., Stamford, Conn. This analyzer is designed to divide a sliver of textile fibers in order to determine the variation and mean of the lengths of fibers. It can be used in analyzing slivers of wool, worsted, or synthetic fibers up to a maximum fiber length of 350 mm. The measurement is made by means of a set of 33 fallers, spaced 10 mm. apart.

The analyzer includes an oscillating feeding apparatus, including a guide, a roller and a comb with its grid, a nipper with an upper jaw and a lower leather-trimmed jaw, a driving in rake, a movable table bearing a pinned field made of a set of fallers and a drawing-off arrangement complete with a circular brush.

Fibers are removed from the sliver being tested and one end of each fiber is secured on a baseline perpendicular to the length of the fiber. The fibers are sorted in zones of decreasing length. These successive tufts are then weighed. They show in regard to the whole sample a proportion which enables you to calculate: the mean length or Schlumberger length, the hauteur and the cumulative length frequency curve. With this information, an accurate characteristic of the sliver can be made showing its composition in fibers of various length. With the assistance of this analyzer, it is possible to create in 20 to 30 minutes an accurate diagram that formerly required three to four hours, it is claimed. *(H-3)*

Napping Energy Indicators



A new method of indicating energy on both Gessner double and single-acting nappers has been developed and announced by the David Gessner Co. Energy, or the amount of nap used, has long been a difficult force to indicate and tabulate. By the same token, the accuracy by which this force can be calibrated becomes important to the efficient operation of a napper.

Gessner energy indicators give a constant indication of energy as the napper is being operated. Any change in this energy force is instantly observed. The fact that this energy indication can be tabulated for future reference is particularly important at any time it is necessary to duplicate previously napped finishes. These new indicators now included on all new Gessner nappers can also be installed on existing Gessner nappers. *(H-4)*

Micro Catalog

A new 24-page two-color, Catalog No. 82 of precision snap-action switches has just been published by Micro, Freeport, Ill., a division of Minneapolis-Honeywell Regulator Co. This catalog covers safety, limit, and interlock switches designed especially for switching a-c circuits in industrial and commercial applications. The catalog covers heavy-duty precision limit switches, switches enclosed in metal housings, some of which are sealed against the entrance of dust, dirt and sealed against the splash of oil, water, and similar fluids harmful to switch mechanisms. Other products included in the catalog are explosion-proof switches, splash-proof switches, auxiliary brackets and switch-actuators, standard size basic switches, and the ultra small switch designs. This new catalog gives complete information on each switch including description, dimensions, mechanical characteristics, electrical characteristics and electrical capacities. Also in this catalog is technical data and application ideas. *(H-5)*

New Bahnson Humidifier

The Bahnson Co., Winston-Salem, N. C., announces that its new Type E humidifier is designed to provide automatically controlled humidification in all types of textile mills. Units may be used for complete humidification systems, for spot humidification in large spaces, for boosting the capacity of existing systems, and for precise humidity control in laboratories, the firm states.

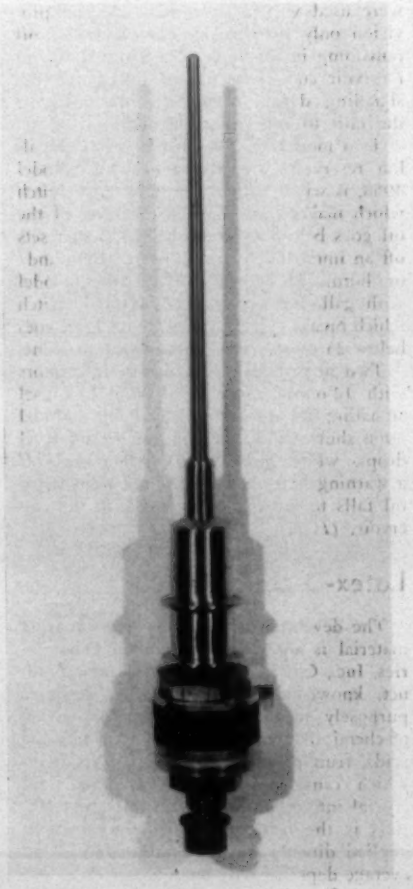
The self-contained units are quickly and simply installed by suspending from ceiling, then connecting water supply and electricity. Water is atomized by centrifugal force and distributed horizontally through a 360° opening. Any portion of the discharge opening may be blocked off for directional distribution. Units evaporate up to three gallons per hour and may be installed singly or in groups with automatic control. Each unit will humidify several thousand cubic feet of room volume at normal conditions. Construction, except for heavy duty fractional-horsepower motors, is of non-corro-

sive metals with silver-grey hammerloid finish. Units measure 15½ inches high by 18¼ inches diameter, and weigh 55 pounds. *(H-6)*

Nissen Writing Tubes

Easy-to-use writing tubes with indelible inks for permanently marking textiles have been developed by John P. Nissen, Jr., Co., Glenside, Pa. They reduce cut offs and are ideal for marking fabrics wherever permanent identification is required in textile mills, from fabrication through finishing. Nissen dye resist colors resist soaping, washing, degumming, fulling, caustic, carbonizing and dyeing. Nissen bleachproof colors will not bleach out, will withstand hard usage, weathering and washing. Nissen writing tubes are equipped with various sized ball point attachments for different applications. Tubes are burstproof and no skilled labor is required to operate them. *(H-7)*

New Era Filling Spindle



The New Era filling spindle, completing the New Era "family," recently was formally introduced to the industry by Saco-Lowell Shops, Biddeford, Me. Several installations in trial operation for several years, the company states, have proved that the New Era filling spindle is practical and successful.

Commenting on this spindle in its official publication, the company states, in part: "In this spindle the conventional New Era type of rubber mounting is used, employing rubber washers which reduce vibration and,

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of course, with the construction which permits the simplified New Era method of spindle plumbing. The only change in this spindle over that of other New Era spindles is that the main shaft is shorter and mounts two anti-friction bearings. The top bearing is located near the shoulder above the top flange of the whorl, and the bottom bearing is located just inside the lower end, just about the center of the tape pull. While this distance is relatively short compared to the wide spacing between bearings on the warp and twister New Era spindles, we have found it to be entirely adequate for the comparative lighter loads of filling spinning.

"The New Era filling spindle, completing our "family" of this advanced design of spindles, has all the advantages inherent in this new design. The spindle will show a definite power savings, eliminate the usual oiling routine, and prevent oil staining the yarn." *(H-8)*

Witco Service Report

A newly-revised and expanded technical service report covering mildewproofing agents with respect to government specifications has been made available by the Witco Chemical Co. The report contains brief summaries of many government specifications calling for mildewproofing of canvas, cotton duck, burlap, rope, net, webbing, cord, belting, thread, twine and felt. Also included are descriptions of the methods used in mildewproofing and the products, such as eight per cent copper naphthenate, used. Finally, there is an index of the specifications abstracted so any particular specifications can be easily located. For copies, write *(H-9)* on request coupon.

Ideal Electrical Tapes

A new and complete line of electrical tapes has been introduced by Ideal Industries, Inc., 1609 Park Ave., Sycamore, Ill. These include a four-coated, ravel-free friction tape a quick-fusing, high-dielectric rubber tape; a two-in-one plastic tape—all described in Ideal Bulletin P-1.

The new Ideal plastic electrical tape provides both insulation and protection against weather and mechanical abuse. The strong vinyl plastic body has a dielectric strength of over 8,000 volts. It is highly resistant to acids, alkalies, corrosive salts, water, oils, greases and alcohols. It is practically impervious to weather and retains its tackiness well at low temperatures.

This new plastic tape makes an excellent insulating medium for electrical equipment. The minimum thickness (.007) of this tape plus its two-way stretch lets it fit snugly to irregular shapes and surfaces. A few layers provide perfect insulation without bulk. Both tape and adhesive are free of corrosive substances. *(H-10)*

Oil-Mist Lubricators

Oil-Mist lubricators with one-gallon oil reservoirs and built-in automatic warning switches which signal the operator by horn and red light, or shut off the machine as the oil level becomes too low, have been announced by the Alemite Division of Stewart-Warner Corp. Oil-Mist units with 12-ounce reservoirs are also now available with built-in warning switches.

Introduction of these new Oil-Mist models further reduces dependence on the human factor in automatic lubrication, E. Ralph Harris, Alemite industrial sales manager, pointed out. Previous models, through employment of a solenoid switch, gave lubrication when the machine on which they were used was in operation, but had provision only for visual measurement of oil remaining in the reservoir. The gallon-size reservoir cuts frequency of filling and the signaling device makes it impossible for the unit to run dry accidentally.

Two models of Oil-Mist units with gallon reservoirs are available. One, Model 4958, is wired with a normally open switch which makes contact when the level of the oil goes below 23 ounces. The switch sets off an immediate warning by red light and/or horn. Model 4959, the other model with gallon reservoir, has a closed switch which breaks contact when the oil level goes below 23 ounces and shuts off the machine.

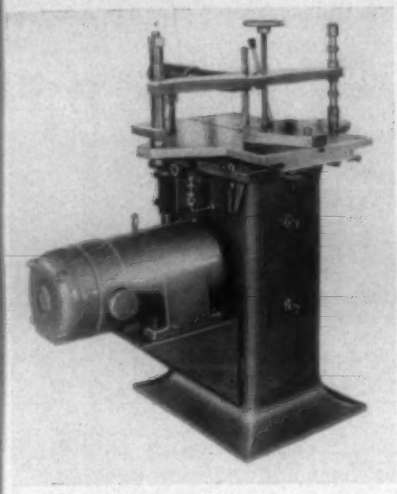
Two new models of Oil-Mist lubricators with 12-ounce reservoirs having low-level signaling devices are also available. Model 4960 shuts off the machine as the oil level drops, while Model 4961 either sets off a warning horn or flashes a red light when oil falls to the two-ounce mark in the reservoir. *(H-11)*

Latex-O-crete

The development of a new type flooring material is announced by United Laboratories, Inc., Cleveland, Ohio. This new product, known as Latex-O-crete, is designed purposely to resist the destructive action of chemicals, many acids, oils, food fats and acids, fruit juices, solvents and other items which cause deterioration of floors. Of special interest to most plant operating officials is the fact that the product may be applied directly over the old surface at an average depth of only one quarter inch. No special floor preparation is necessary other than thorough cleaning. Latex-O-crete is shipped in complete "unit" form ready for application. All ingredients are proportioned at the factory and no other materials need be added. The product contains no asphalt or other bituminous substances. It will withstand considerable heavy traffic from materials handling equipment and may be applied either interior or exterior. Latex-O-crete is a highly specialized product for a highly specialized job. It picks up where other industrial flooring materials leave off

nd is claimed to solve many flooring prob-lems that heretofore have been unanswered. *(H-12)*

Sunray Keyseater



For the textile mill maintenance department, the Sunray Co. of Spartanburg, S. C., recommends its Sunray keyseater with straight or tapered keyways. The company describes the machine as containing the following features: hardened and ground steel guide pins; steel supports with hardened and ground steel bushings; hardened and ground guide plates; bronze slide on ball bearings connected to steel eccentric pin; automatic centering cutter holder; adjustable sub-table for tapered keyways; table feed handle; automatic centering top cutter guide; steel hold-down; enclosed gearmotor; steel cutter support which swings out for loading and centers cutters automatically; adjustable stop for depth of cuts; T-slotted table with steel V-block for centering and backing up work; and steel motor support. All inside movements are metal covered for protection with convenient oil holes. *(H-13)*

Aqueous Water Repellent

Hydrocide S.X. 2210, a radical new extension of L. Sonneborn Son's, Inc., water repellent line, is an aqueous solution of silicone resin compounds specifically designed for all masonry surfaces with a high lime content. It is completely invisible, non-inflamable, and will not discolor or wear away. Tests show an indicated life expectancy of ten years or more. A specific, highly efficient, water repellent product for limestone, asbestos cement sidings, and all new and old masonry that is rich in lime. *(H-14)*

Termite Control

A new packaged product, which permits industry in certain cases to do its own "termiteproofing" effectively and at a great saving, has recently been introduced by the Federal Chemical Co., Inc., 2701-05 Winthrop, Indianapolis, Ind. The new product, known as Arab U-Do-It termite control, is designed for the modern soil treatment method around the foundation and under plant property. A liquid concentrate with a chlordane base, it is mixed with water—

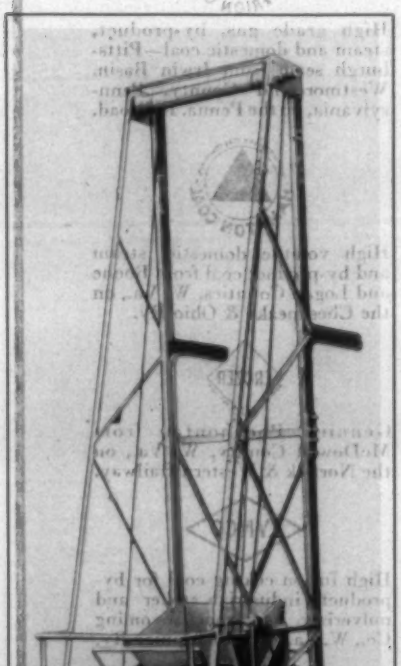
one gallon making 100 gallons of ready-to-use termite killer.

Advantages of U-Do-It, from industry's standpoint, are the ease and economy of application. No special tools or training are required to protect plant property and inventory against costly damage by subterranean termites. Regular maintenance crews can handle the job simply by following the instructions on the product label. And, by doing the work with personnel already on the payroll, industry gets protection against termite damage—at a great saving.

Arab U-Do-It (concentrate) termite control is being distributed nationally through lumber dealers. *(H-15)*

Powermaster Boilers

Orr & Sembower, Inc., Morganton Road, Reading, Pa., has made available to the industry its Bulletin 1218 containing complete descriptions with dimensions and data on several types of available boilers, including its Powermaster, in 16 different sizes. According to the firm, two years ago Blue Bird Silk Mfg. Co. of York, Pa., replaced its coal-fired boiler with two 200 h.p. Orr & Sembower Powermaster packaged automatic boilers, effecting a reduction of 20 per cent in the cost of producing steam for processing and heating. *(H-16)*



THIS DUMPING MACHINE, developed by Sunray Co. of Spartanburg, S. C., is electrically powered and automatically dumps a large-size truck into a storage hopper. According to Sunray, this same principal of operation can be utilized in numerous instances where elevating and dumping is desired. *(H-21a)*

Marquette Catalog

A new and revised catalog of Marquette roller bearing spindles has just been issued by Marquette Metal Products Co., Cleveland, Ohio. Attractively printed in two colors, the catalog describes all important features of the spindles, including the patented and exclusive full-floating footstep bearing. It illustrates typical models of spindles in four classifications: cotton and rayon spinning and twister spindles, rayon and nylon throwing and twister spindles, woolen and worsted spindles, and heavy-duty twister spindles. The catalog shows several new models that were not included in previous editions. Among these are internal brake spindles with knee brake lever, locking hand brake lever and toggle brake lever. Also new is a worsted spindle with external brake. *(H-17)*

Dextrol Rayon Crepe Oil

A new oil for crepe soaking of rayon skeins or cakes has been developed by Dexter Chemical Corp., New York. Dextrol Rayon Crepe Oil No. 114. A blend of sulfonated oils with free cocoanut oil, it is reported to form a very stable emulsion for machine or tub soaking. *(H-18)*

New Temperature Controls

Marked improvement in the efficiency and quality of nylon production through new methods of temperature measurement and control during processing was predicted recently by a textile industry expert. The key to the new approach is a "radiamatic pyrometer" which measures the actual temperature of the fabric itself during processing—instead of just the air surrounding it—it is explained by J. D. MacNamara, textile industry sales manager for the industrial division of Minneapolis-Honeywell Regulator Co.

This new, low-range temperature measuring device, recently developed by his company, Mr. MacNamara said, has taken much of the guesswork out of important finishing operations, reducing processing time while improving quality." He added that an analysis of a year's field application of the new control in a half dozen mills here and in Canada had revealed that the new control has provided mill operators with precise indications of temperature not possible through convention methods.

Heretofore, Mr. MacNamara explained, mill owners could only measure the temperature of the air surrounding the fabric during processing, and were therefore forced to more or less guess at the actual temperature of the cloth, despite the fact that control of temperature is regarded as a critical step during the finishing processing of nylon. "But by means of this new device the temperature of the fabric itself is measured. Actually, it measures the radiated heat energy from the cloth by focusing this radiation through a lens onto sensitive elements. This is much the same way sun's rays are focused through a magnifying glass. It can do this from as far away as one foot—an important consideration where it is impractical or impossible to make physical contact."

Mr. MacNamara explained that too high a temperature will destroy the fabric by melting it, while on the other hand exposure to even the proper temperatures for too long a period will cause discoloration of the cloth. Another successful application has been in resin curing operations, he said. This is the step in which resin is applied to the fabric to make the cloth either waterproof, wrinkle-resistant or fireproof. *(H-19)*

Scotch Brand Tapes Folder

How eight Scotch brand pressure-sensitive tapes can be used for various labeling, decorating, and identifying tasks is shown in a new six-page folder. The folder—describing Tapes Nos. 600, 700, 471, 750, 800, 860, and 880—is available on request from Minnesota Mining and Mfg. Co., St. Paul, Minn. It contains 20 photographs and drawings of typical tape applications such as labeling cans, employee identification cards, and packaged merchandise; identifying parts, pipes, and floor areas; and for decorating combination deals, packages, office graphs, and other items. The eight tapes described include colored and transparent cellophane, colored and transparent acetate fibre, acetate film, plastic film, and transparent and colored filament tape. A table listing the properties for the eight tapes—all "engineered for labeling, decorating and identifying applications"— describes the tensil strength, adhesion, thickness and elongation of each. erties for the eight tapes—all "engineered for labeling, decorating and identifying applications"—describes their tensile strength, adhesion, thickness and elongation. *(H-20)*

Battery Charge Indicator

To help obtain greater efficiency and maximum economy with industrial truck batteries, Gould-National Batteries, Inc., Trenton, N. J., announces a new and improved charge indicator. The instrument can be easily mounted so that the operator can see the dial at all times, thus giving him instantaneous readings of the state of battery charge while his truck is operating. An easy-to-read, three-colored dial indicates whether the battery is "full," "½," "empty," or in "danger." Changing bat teries as soon as they register "empty" prevents repeated overdischarge which shortens battery life.

The indicator, a Wheatstone bridge type instrument, is readily adjustable for three, six, 12, 15, 18 and 24-cell batteries; a series of resistors and taps permits the desired adjustment. It is completely enclosed in a metal case finished in black, crackle enamel. The meter is balanced to read accurately regardless of its mounting or the truck's position. A toggle switch disconnects the indicator from the battery during charge. The indicator is available for immediate delivery and carries a 90-day guarantee. *(H-21)*

New Goodyear Latices

Production of two new latices of special interest to textile converters and other chemical processors is announced by Goodyear Tire & Rubber Co.'s chemical division. The

new products are designated as Chemigum Latex 235BHS and Chemigum Latex 245 CHS, states C. O. McNeer, chemical division sales manager. The new 235BHS adds a high solids, minimum stabilized latex to the 235 series of butadiene-acrylonitrile copolymers. The new 245CHS adds a high solids, anionic stabilizer copolymer to the 245 series.

According to R. E. Workman, in charge of the chemical division's commercial development, requirements of textile converters can now be met with a Chemigum latex tailored for their particular needs because of availability of three different stabilization systems, ammonia soap, synthetic anionic, and minimum stabilization in both medium and high acrylonitrile content latices. Favorable reception of the anionic stabilized high acrylonitrile latex 235BHS by those interested in a high acid salt tolerance was responsible for introduction of 245CHS to expand sales in this field with a medium nitrile-content latex. *(H-22)*

Hartofume C

Hart Products Corp., 1440 Broadway, New York City, announces Hartofume C, a new gas fading inhibitor in liquid form. It is said to be a permanent anti-gas fader which provides a complete range of gas fading protection for dyed acetate fabrics. This protection is unaffected by washing, dry cleaning or even stripping, the firm states.

Hartofume C is claimed to be substantive to cellulose acetate fibers and, therefore, may be applied to the cloth directly in the dye bath. The manufacturer reports the following additional advantages for Hartofume C:

It disperses readily in water to give stable, milky emulsions. It needs no additional solubilizers for dispersion in water. It may be applied in jigs, dye boxes, circulating liquor machines and by padding. It is not removed from the cloth by stripping agents and, when redyeing, no additional Hartofume C is required. It does not affect the light fastness of most acetate and direct dyes. It does not affect the shades of dyestuffs so that no allowance need be made in matching shades. *(H-23)*

Industrial Stereomicroscope

A free consuting service through which production and quality control supervision in a wide variety of manufacturing and processing plants can explore new concepts in optics for industry has been offered by Bausch & Lomb Optical Co., Rochester, N. Y., in connection with its new industrial stereomicroscope. Through this service, Bausch & Lomb representatives will demonstrate how various models of the new instrument can be built into manufacturing and processing set-ups to speed operations, reduce waste, impfove quality control methods, and diminish employee fatigue.

The instrument, embodying latest advances in optics for industry, is available in a large range of wide field objectives and wide field eyepieces to provide the variety in size of field, working distance, and magnification needed for the newest specialized processing applications.

The microscope was designed in response

FOR THE TEXTILE INDUSTRY'S USE—

to demands from industry as an instrument which could cope with the ever-increasing quality control standards in processing plants, according to James R. Benford, head of the Bausch & Lomb microscope design department. "In the last 15 years, quality control standards in industry have gone steadily upward," Mr. Benford said. "This has resulted in a demand for increased use of optical instruments both in the actual processing, quality control set-ups, and inspection procedures."

The industrial stereomicroscope permits comfortable observation of an enlarged image with a wide field of view, long working distance, and three-dimensional, easily-interpreted qualities. When built into a processing or inspection set-up, it provides for continuing observation of the operation so that quality control standards can be adhered to. This new stereomicroscope with its illuminators and accessories is described in Catalog D-1029. *(H-24)*

Automatic Loom Bobbin Finish

A new automatic loom bobbin finish said to be virtually indestructible has been perfected by New England Bobbin & Shuttle Co., Nashua, N. H. Starting with its precision made bobbins of carefully selected straight grain rock maple, the finish is applied by coating the entire bobbin with a specially developed resin base, thermosetting plastic, to which a catalyst is added for hardening. Cured slowly by N. E. Bobbin's own specially developed process, the finish becomes a permanent, integrated part of the bobbin itself, satin-smooth and unbelievably tough.

This smooth, tough plastic and the coating process was developed after months of research in New England Bobbin's laboratory, and the finished bobbins have been exhaustively tested for wearing qualities and heat resistance. They have been exposed, for example, to steam (212°) for three consecutive hours without the slightest measurable effect on either bobbins or finish.

Steam setting or chemical conditioning of yarn on bobbins does not effect the new finish in any way. Because NEB-800's (as the new plastic coated bobbins are named) are satin-smooth, weave trouble such as yarn abrasion and snag due to roughened bobbins are eliminated. The incredible toughness of the finish combined with its smoothness enables the NEB-800 to resist the "crush" and pull of synthetics even when the filling package is nearing the end of its run.

NEB-800s cost less than most enamel finishes and only slightly more than most conventional finishes. The company believes these plastic-coated bobbins will eventually replace lacquer finish bobbins in many mills, particularly those specializing in synthetics, blends, and high quality yarns. *(H-25)*

I.C.S. Textile Course

A group of eight new home study courses for personnel employed in the textile industry has just been announced by the International Correspondence Schools of Scranton, Pa. "The new courses are especially designed to prepare students for the greatly increased competition in the textile industry today," says John C. Villaume, acting dean of the faculty at I.C.S. "In the past, if a man was a good technician, that was all he needed to be promoted to supervisor. Today he must be familiar with the principles of good supervision."

The new I.C.S. courses, Dean Villaume points out, are constructed to meet the needs both of those who want to be technicians and those who want to be supervisors. Among the new textile courses are units for loom fixing technicians, finishing and dyeing technicians, hand weaving and designing, cotton carding and spinning technicians, cotton warping and weaving technicians, rayon throwing and warping technicians, rayon warping and weaving technicians and textile mill supervisors. The new courses are available, Dean Villaume says, both to individual students and to employers who wish to provide specific training for key personnel. *(H-26)*

Serving The Textile Industry

Aquex Expanding

A plant expansion program that will more than double the present output of textile finishing resins has been announced by the Aquex Development and Sales Corp., Whippany, N. J. This expansion is in response to industry demands that have seen more than 40 million yards of fabric—mostly rayons—treated with the Aquex process since its introduction less than six months ago.

The firm currently markets two different types of its resin — Aquex B.N.W. and Aquex B.N.W.C. Both impart greatly improved abrasion resistance and extremely low residual shrinkage. Applied with conventional finishing equipment, the resins can provide almost any type of hand. In addition, a process has been developed with Aquex B.N.W.C. that renders 100 per cent spun rayon fabrics unconditionally washable.

Enlargement of the Aquex plant is taking place in both manufacturing research and laboratory areas. E. W. Sweet, vice-president and general manager of Aquex, has announced that the doubling of production will be accomplished by construction of an entire new wing on the plant's main building. The latest type of manufacturing equipment will be placed in the structure. The Aquex research laboratories, equipped for all types of treating and testing operations, have already been tripled in size.

Expansion of another type was also announced by the company. To meet the interest aroused for these new textile resins in foreign countries, Mr. Sweet disclosed the appointment of Lerner International, 34 East 39th Street, New York City, as the Aquex export distributors and agents. This export organization is making plans to serve textile plants in Europe, Central and South America and the Far East.

RECENTLY COMPLETED PLANT OF CRONLAND WARP ROLL CO., Lincolnton, N. C., manufacturer of loom beams, comber lap pins, and cloth and warp rolls. The company also features a complete section beam repair service. Officers are B. M. Cronland, president; Craig W. Barker, secretary; and R. B. Cronland, Jr., vice-president.

Organize Field Group

Organization of a field group to provide Allis-Chalmers general machinery division customers throughout the country with a maximum of fast and efficient service has been announced jointly by J. L. Singleton, vice-president in charge of the division; C. W. Schweers, vice-president and director of sales, and J. F. Roberts, vice-president and director of engineering.

The newly-organized group is operating under the direction of Mr. Schweers. It will handle all service, repairs, breakdowns, and adjustments in the field. Delivery and

erection of new equipment, major overhaul jobs, special service work, and major repairs requiring special skills or long period manpower assignments will continue to be handled from headquarters at Milwaukee under the direction of C. B. Smith. Regional service supervisors named under the new setup include C. P. Suykerbuyk of Atlanta, Ga., in the Southeast region, and E. G. Kime of Dallas, Texas, in the Southwest region.

Quaker Rubber Expands

Exapnsion of its rubber roll covering facilities at a cost of $100,000 has been completed by Quaker Rubber Corp., division of H. K. Porter Co., Inc., Philadelphia, it was announced by G. A. Dauphinais, vice-president and general manager. Quaker planned this expansion to meet the increased demand for rubber covered rolls by the textile and other industries as well as manufacturers of equipment for those industries. Included in the new department are the latest type lathes, grinders, overhead traveling cranes, testing and laboratory facilities. With the new equipment and plant layout Quaker can now apply rubber coverings to rolls measuring 17 feet in length and weighing as much as 16 tons. Coverings of crude rubber, Neoprene and many other synthetics are available in various degrees of hardness from "0" P & J reading to 260, or from 25 to 100 "A" shore durometer.

Venango Expanding

Venango Engineering Co., Philadelphia, manufacturer of textile finishing equipment, is building an addition to its present facilities at G and Lycoming Streets, Alexander Robertson, treasurer, made known. The new brick and steel building will cost about $40,000 and will comprise 10,000 square feet of floor space.

Bahnson Maintenance School

The Bahnson Co. announces its annual operating and maintenance engineers classes to be held at the Robert E. Lee Hotel in Winston-Salem, N. C., during the weeks of Sept. 29 and Oct. 11, 1952. These classes are designed to assist operating personnel to become more familiar with their air conditioning and refrigeration systems. Instructors are outstanding in their fields and they provide competent information on the operation and maintenance of the equipment involved in modern industrial air conditioning systems. All textile firms operating or contemplating purchase of air conditioning systems should avail themselves of this opportunity for training their personnel. Classes are open to all and there is no cost other than the expenses of men sent to attend classes.

Purchase Plant Site

Purchase of 21 acres of land near Simpsonville, S. C., on which will be built a plant to manufacture mill specialties and parts, including loom crankshafts, wire parts, springs and other items, was announced recently by Salvator DeFrancesca, Jr., of the Trinacria Specialty Mfg. Co., of

Norwich, Conn. The company will have its architect begin work immediately on plans and specifications for a 20,000 square foot building and hopes to let a contract soon enough for the plant to be occupied by the first of the year, Mr. DeFrancesca said.

Initially the plant will employ about 100 people. Both the size of the plant and the working force will be increased gradually. The plant is expected to reach 80,000 square feet within a few years. Mr. DeFrancesca said that the company was happy to locate in South Carolina and in the heart of the textile industry which purchases so much of its output.

He said that selection of South Carolina was due to the "excellent co-operation" received from the state development board, state officials, including Gov. James F. Byrnes, and the local Greenville board and chamber of commerce and the general attitude of the state's citizens.

The plant site is half a mile north of Simpsonville and has both highway and rail frontage. The size of the site will allow adequate room for expansion of the plant.

Certification Agreement

A certification agreement between Interchemical Corp., Textile Colors Division, Hawthorne, N. J., and the United States Testing Co. of Hoboken, N. J., has recently been entered into, it was announced recently by the United States Testing Co. This agreement covers the certification of the colorfastness to light, washing, and crocking of Aridye ® pigment colors when applied to synthetic fabrics by commercial textile printers. This agreement is unique in that it is the first time a pigment print has been certified by the testing company indicating the great technical progress that has been made in the pigment printing field by Interchemical. The agreement, although certifying a product manufactured by Interchemical Corp., applies to the finished product as it leaves the printers.

The converter can now be assured that any fabric which bears the Seal of Certification of the United States Testing Co. will be acceptable to the cutter and the ultimate consumer alike, as far as colorfastness to light, washing, and crocking is concerned. For the first time, an improved process for applying Aridye colors is taking the guess work and the risk out of pigment color printing on synthetic fabrics. The assurance of uniform, lasting colors and a wide scope of techniques make this new process something of a milestone in the textile industry.

Interchemical Aridye pigment colors that meet the requirements for certification have been developed from years of research on pigment colors. They have been formulated and may now be applied so as to give the printer greater clarity of color, more precise definition and near-perfect colorfastness to washing, light and crocking.

Under the terms of the certification agreement, the customers of Interchemical, who contract for this certification, will use Aridye colors in the prescribed manner and upon completion of the printing operation, representative samples of each lot will be sent to the United States Testing Co. for testing as a further quality control. The testing company will also have the right to take random samples for test from the printing plant and to obtain samples of material printed with Aridye colors in the open market. Colorfastness to light, washing, crocking and other tests will be performed on all of the samples, and the printers will be permitted to use the seal of the United States Testing Co. on all materials that meet the required standards. Standard test methods as outlined by the A.A.T.C.C. are used in this certification program.

Texplant Staff Additions

Texplant Corp. and its affiliate, Arlind Corp., Stamford, Conn., announce the addition to its staff of Jerome A. Olwell as assistant to the president; and G. Giraudi to organize and manage its engineering and production procedures division.

Mr. Lindell, president of the affiliated companies, when making this announcement, advised that Texplant Corp. is U. S. agent for the "Perfect" spinning frame manufactured by Spinnbau G.M.B.H., Germany, and has acquired the patent rights on a revolutionary printing machine the first model of which is now in production in Germany. They handle numerous other textile machines representing the latest European developments in the textile field, including worsted and rayon spinning equipment, nappers and cloth room equipment as well as spinning and weaving accessories, one of which is the famous Adolff paper tubes.

Mr. Olwell since 1939 was associated with United Merchants and Manufacturers as an assistant purchasing agent. He is a graduate of New York University School of Commerce. Mr. Giraudi was formerly a textile consulting engineer with offices in New York, Milan and Paris, and has directed the installation of textile production facilities on the Continent and in the United States. He is a graduate of the Industrial School, Biella, Italy, and did graduate work at the Technical College, Turin, Italy.

Beckman Purchases Berkeley

The purchase of the business and assets of Berkeley Scientific Corp. of Richmond, Calif., by Beckman Instruments, Inc., South Pasadena, Calif., has been announced by Dr. Arnold O. Beckman, president of Beckman Instruments, Inc. The Berkeley Scientific Corp. has been dissolved and the operations will continue as the Berkeley Scientific Division of Beckman Instruments, Inc. No changes in management or personnel are contemplated. W. K. Rosenberry, founder and president of Berkeley Scientific, becomes a vice-president of Beckman Instruments, Inc., and will remain in charge of operations at the Richmond Plant.

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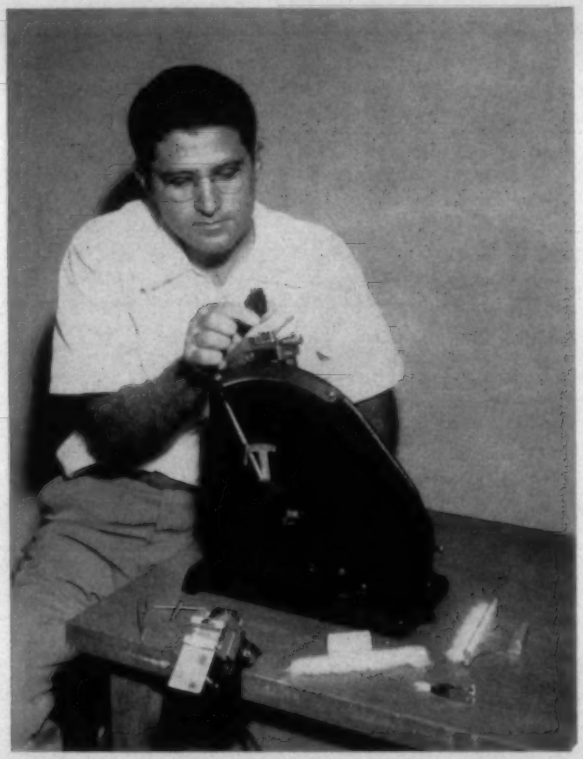
School Develops New Cotton Fiber Tester

A new instrument for measuring both tensile strength and elongation of small tufts of cotton fibers has been developed by the University of Tennessee fiber research laboratory in Knoxville, under a research contract sponsored by the U. S. Department of Agriculture. Fiber elongation is important in the ability of fabrics to stand hard wear.

As in other practical testers, a small tuft of fibers is gripped between two pairs of specially designed jaws spaced a short distance apart. By a pendulum-type mechanism an increasing load is applied to one pair of jaws until the fibers break.



Rollin S. Orr, member of the U.S.D.A. Southern Regional Research Laboratory in New Orleans, is shown examining the new fiber testing instrument developed by the University of Tennessee Fiber Research Laboratory in a research contract with the U. S. Department of Agriculture. The Stelometer has the advantage over previous fiber testers of measuring both tensile strength and elongation-at-break. Dr. Kenneth L. Hertel, director of the Fiber Research Laboratory and head of the physics department of the University of Tennessee, was in charge of the development. Mr. Orr was the Department of Agriculture speciality collaborating with the university on the project.

Dr. G. E. Hilbert, chief of the Bureau of Agricultural and Industrial Chemistry which supervised the contract through its Southern Regional Research Laboratory in New Orleans, said that cotton buyers and breeders can use this instrument to get more accurate information on fiber prop-

erties that most affect the wearing qualities of cotton fabrics.

The new tensile tester, called the Stelometer (from STrength ELongation-METER), has the advantage over previous fiber testers of measuring both tensile strength and the elongation or stretch obtained prior to break. Since fiber elongation is an important factor in the ability of fabrics to stand hard wear, the tester should prove valuable in selecting cottons especially suited to this use. The new Stelometer also features improvements in speed of operation and accuracy of results that are essential in routine testing or raw cotton at a mill. It should be useful to breeders in their efforts to develop cottons for specific purposes.

Dr. Kenneth L. Hertel, director of the fiber research laboratory and head of the physics department at the University of Tennessee, terms the new instrument "as significant to the cotton industry as the earlier development of the Fibrograph and the Arealometer." The former measures fiber length and the latter, fiber fineness. These instruments were also developed at the university's fiber laboratory for rapid determination of fiber properties.

Dr. C. H. Fisher, director of the New Orleans laboratory, said that the development of this instrument resulted from fundamental research to obtain new information which would aid in improving the utilization of cotton fiber. Rollin S. Orr of the Southern Laboratory was the specialist representing the Department of Agriculture at the university on this project.

Werner Von Bergen Is Olney Medal Winner

Werner von Bergen, director of research and control laboratories of the Forstmann Woolen Co., Passaic, N. J., is the 1952 winner of the Olney Medal it has been announced by the award committee. The formal presentation of the medal will be made at the annual meeting of the A.A.T.C.C. in Boston in November. The medal has been awarded annually for the past nine years "for outstanding achievement in the field of textile industry. . . . Its purposes are to encourage and to afford public recognition of such achievements and contributions, and to be a testimonial to Dr. Louis Atwell Olney."

Previous recipients of the Olney Medal have been: 1944, Dr. Louis A. Olney; 1945, Dr. Milton Harris; 1946, William H. Cady; 1947, Edward R. Schwartz; 1948, Harold M. Chase; 1949, Charles A. Seibert; 1950, Dr. George L. Royer; 1951, Raymond W. Jacoby.

Mr. Von Bergen was born in Oberwil-Bueren, Switzerland, in 1897. He grew up in Bern, Switzerland, where he attended public and high school. He obtained his diploma as a chemist from the Technical College in Burgdorf, Switzerland, in 1916. In 1917 Mr. Von Bergen worked as a chemist in The Textile Printing Mills, Suhr, Switzerland; in 1918 as a chemist in the Governmental Gas Laboratory, Zurich; from 1919 to 1926 as a chemist at the woolen mill of Pfenninger & Co., Waedenswil, Switzerland, with the exception of one year, 1922-1923, when

he worked as a dyestuff technician at the I. G. Farbwerke of Bayer & Co., Leverkusen, Germany. In 1926 he joined the Forstmann Woolen Co.

He is co-author of the *American Wool Handbook* and the *Textile Fiber Atlas;* author of the wool and specialty hair chapters of *Matthew's Textile Fibers,* sixth edition; and has over 50 publications in the field of fiber technology to his credit.

He taught woolen manufacturing at Columbia University for ten years. He was scientific consultant in the European theater of war for the United States Army and is at present a member of the advisory board on Quartermaster research and development of the National Research Council as well as a member of the United States Department of Agriculture wool advisory committee. He is also a member of the general research committee of the American Association of Textile Chemists and Colorists; chairman of D-13, subcommittee A-3 on wool and its products of the American Society for Testing Materials; a member of the advisory committee of Textile Research Institute; and Fellow of the Textile Institute.

Working at a time when there was little co-operative effort, little basic knowledge to build on, and generally poor support, Werner von Bergen had the vision to study all phases of wool fiber technology. He was a leader in adding to the fundamental knowledge available. Working closely and sympathetically with the operating personnel in the mill where he is employed, teaching courses at Columbia University, and through his publications, particularly the *American Wool Handbook,* he made a great contribution in spreading fundamental knowledge of the wool fiber into the industry as a whole. Through laying out pioneer courses at Columbia University and in the classes organized in Passaic, he has been enthusiastic in increasing the educational facilities on textile subjects.

Werner von Bergen has been an enthusiastic, unselfish supporter of every group research activity which touched on his field, including constant support through the entire history of the United States Institute for Textile Research, through support of all studies endorsed by the textile committee of the A.S.T.M., and through active participation in such progressive studies as the Weigerink drying research and the present wool research project which is being carried on in co-operation with the Textile Research Institute.

The most significant part of Werner von Bergen's contribution is the fact that he had the faith to carry on the work before research was fashionable and when support was so difficult to obtain that he had to carry on much of his co-operative effort on his own time, and attend meetings in which he made major contributions at his own expense. Much of his earlier textile work was published in Melliand's *Textilberichte.*

Delegates Named For International Parley

Membership of the American delegation to the International Cotton Textile Conference to be held in England in September have been disclosed by W. A. L. Sibley, president of the American Cotton Manufacturers Institute. At the invitation of British textile leaders, the Americans will join with groups from the United Kingdom, western Europe, Japan and India to study problems seen arising from

a growing distortion in world trade, already evidenced by the fact that while cotton goods production has doubled in the past two decades the amount going into exports has dropped more than 40 per cent.

Robert T. Stevens, board chairman of J. P. Stevens & Co., New York, will head the U. S. delegation. Mr. Stevens, who has taken part in similar missions previously, is chairman of the Federal Reserve Bank of New York and chairman of the business advisory council for the Department of Commerce.

Mr. Sibley, who is vice-president and treasurer of Monarch Mills, Union, S. C., will also serve as a delegate. Both state that whereas the American delegation will have no power and no wish to enter into any agreements during the conference, there is urgent need for textile nations to get together and analyze the dangers arising from trade instability. The conference is regarded as an opportunity to achieve permanent benefits through mutual education and understanding. Other U. S. delegates will be:

Percy S. Howe, Jr., president of the American Thread Co., New York; Gordon Harrower, president and treasurer, Wauregan (Conn.) Mills, Inc.; Alonzo F. Bonsal, vice-president of Joshua L. Baily & Co., Inc., New York selling agents, and member of the board of directors, Association of Cotton Textile Merchants of New York; N. S. W. Vanderhoef, vice-president and director, Turner Halsey Co., New York selling agents, and chairman of the board, Textile Export Association of the United States; Malcolm G. Chace, Jr., president and treasurer, Berkshire Fine Spinning Associates, Inc., Providence, R. I., a director of A.C.M.I., will serve as representative of the National Association of Cotton Manufacturers; Robert C. Jackson of Washington, executive vice-president, A.C.M.I.; Howard Stovall of Stovall, Miss., agricultural leader in the Mississippi Delta region, representative of American raw cotton produce interests.

Dr. C. T. Murchison of Washington, economic advisor to the A.C.M.I., and John W. Murray, secretary-treasurer of the Textile Export Association who has charge of the A.C.M.I. New York office, will serve as staff members to the delegation. A third member of the delegation staff will be Read P. Dunn, Jr., director of the foreign trade division, National Cotton Council, who recently visited many of the countries which will participate in the conference.

The conference will open in London, Sept. 17, and its deliberations will continue in Buxton, England, from Sept. 18 through 26. Unlike previous international conferences which have been confined largely to British, American and

Japanese groups, it will mark the first assembly of spokesmen from all nations where textile manufacturing ranks as a leading industry.

As they consider subjects to be taken up at the conference, American textile men point out that the basic paradox of higher production versus declining world trade is complicated by many factors, such as the spread of Communism, growing nationalism, and the fact that many countries are building up their industries to supply home markets but also have in mind using textile exports as a means of acquiring foreign exchange. Many nations are imposing import quotas, exchange controls and other devices to restrict imports for the purpose of protecting their domestic industries, it is pointed out, even though those industries are inadequate.

Observers express concern over the possibility that if present trends continue, they could lead to an eventual crisis which would bring suffering to all competing nations. They view the forthcoming conference as a timely opportunity for textile leaders of the world to face the situation objectively, duly considering the limitations indicated by economic reality and logic.

Carborundum Presents New Ceramic Fiber

A new man-made ceramic fiber, Fiberfrax, said to be usable wherever asbestos and glass fiber properties are needed was introduced recently by the Carborundum Co., Niagara Falls, N. Y. According to Clinton F. Robinson, president, the new fiber is a kindred product to the abrasives which the company produces. Its raw materials are aluminum oxide, silica, and some modifying agents, with the process involving the same kind of electric-furnace melting that produces aluminum-oxide abrasives. No critical materials, such as platinum are required.

This ceramic fiber is said to possess excellent resistance to heat and unusual electrical properties, which promises to ease the pinch on asbestos in the current defense program.

Pilot production equipment at Carborundum can produce the material at the rate of 30 tons a month. At the present stage of progress, Fiberfrax is not available in spun, woven or filament form, although mixtures with other fibers permit carding and spinning. The fibers range up to three inches in length and have an average thickness of about 1/25th that of human hair.

The fiber is made by melting aluminum oxide and sand in an electric furnace, then subjecting a stream of the molten

lava-like material to a controlled blast of air. The molten material is blown into a fluffy mass made up of random arrangements of extremely fine fibers. Carborundum sources feel that this new development will find widespread uses and application in the aviation, electrical, papermaking and chemical industries.

The firm is proceeding with a $500,000 plant extension program to make the fiber in greater quantities and reduce unit cost.

New Textile Movie Shown On Television

A new 26-minute film, "The Greater Goal," depicting the modern story of texitles in dramatic sequence, had its premier television showing in the South Aug. 5 over station WBTV, Charlotte, N. C. The film was produced by Lou Loft of New York for Textile Information Service, public relations agency of the textile industry, and many of the sequences in the story were shot in the two Carolinas, where about 60 per cent of the entire cotton textile industry is concentrated.

The 16 mm film is in color but a black and white print has been prepared sepcifically for television showing. The color film was first presented at the recent annual meeting of the American Cotton Manufacturers Institute in Atlantic City, N. J., and received wide favorable comment.

The film shows textile people at work and at play and deals with various manufacturing and merchandising processes as well as the human aspects of the industry which in the two Carolinas furnishes two out of three industrial jobs, and is the mainstay of the region's economy.

Southern Textile Exposition To Be Biggest

Advances in textile machinery and improved designs covering a wide range of products used by textile mills will be shown by about 250 exhibitors from all parts of the nation at the 17th biennial Southern Textile Exposition to be held at mammoth Textile Hall, Greenville, S. C., Oct. 6-11, inclusive. The facilities for the exhibition have been greatly expanded and additional space provided to take care of exhibits which formerly could not be accommodated, but all exhibit space has been sold out for many months, according to James R. Woodside, president and treasurer of Textile Hall Corp.

The show attracted nearly 40,000 people, all in the trade, in 1950. While the show is called the Southern Textile Exhibition, "Southern" is actually a misnomer, for the

exhibition is industrywide in scope and since the first show was held back in 1915, the Southeast has become the center of the cotton textile industry, with the great bulk of it situated within a 100-mile radius of Greenville.

The size of the exhibition, largest of its kind to have been held regularly over a span of more than a quarter century, is accounted for to some extent by the make-up of the textile industry, which instead of consisting of just a few large companies, includes something over 1,200 mills scattered from Maine to Texas.

All exhibitors, coming from practically every part of the country, don't all make textile machinery, of course, or even parts. But textile mills use practically everything—from a big machine called a slasher that is large as a railway locomotive down to a piece of chalk.

The exhibition will have a distinctly "new look" this year. A new permanent 8,000 square foot annex to Textile Hall has been completed. There is now about 49,000 square feet of exhibit space. The whole layout has been remodeled and given a face-lifting. A new stair tower about midway of the main building provides an additional entrance to the second floor and balcony.

The ventilation system has been improved. New yard for parking space has been provided. There is a new concrete loading platform. The new one-story addition of brick and steel, 74 by 108 feet, adjoins the main building and connects with the steel annex that replaces a temporary annex removed after the 1950 show. Across the driveway from the new addition another brick building, 48 by 62 feet, has been completed. The buildings are connected by a wide passageway.

The first Southern Textile Exposition was held in 1915 in the warehouse, then newly built, of the Piedmont & Northern Railway and the present building, designed especially for exhibiting heavy machinery, was built two years later by Textile Hall Corp., an eleemosynary organization.

W. G. Sirrine, a leading figure in the industry, served as president of the corporation from 1920 until a recent reorganization under which he became chairman of the board and Mr. Woodside became president. W. W. Carter of Greenville is vice-president and Miss Bertha M Green is secretary.

The directors are Thurmond Chatham, Elkin, N. C.; Donald Comer, Birmingham, Ala.; Herman Cone, Greensboro, N. C.; Robert I. Dalton, Charlotte, N. C.; L. O. Hammett, Honea Path, S. C.; W. S. Montgomery, Spartanburg, S. C.; George M. Wright, Abbeville, S. C.; and John W. Arrington, Jr., Sydney Bruce, W. W. Carter, O. E. Hatch, Edwin Howard, Ellison S. McKissick, W. W. Pate, Ernest Catton, F. W. Symmes, Harold R. Turner, Mr. Sirrine and Mr. Woodside, all of Greenville. Messrs. Bruce, Hatch, Patton, Symmes, Turner and Woodside make up the executive committee.

The exhibition lasts a full week, Monday through Satur-

day, with the opening and closing hours being 9 a.m. to 7 p.m. except on the final day, Saturday, when the hours are 9 a.m. to 1 p.m.

Brochure On Wool Textile Shrinkage

A brochure on the cause and treatment of the various types of shrinkage in wool textiles was issued Aug. 18 by the Wool Bureau, Inc. The brochure contains valuable information for consumers and educators on types of wool textile shrinkage and the various treatments available.

The American people's great concern with washing pervades the thinking of manufacturers in planning production, the bureau points out. When the product is to be shrink-resistant wool fabric two factors guide his plans: (1) the relative interest in a luxurious, soft hand as compared with ease and frequency of laundering, and (2) the proper chemical treatment.

Treatments to prevent felting shrinkage tend to alter characteristics of the wool fiber, particularly with respect to resistance to wear and touch, or hand, according to the bureau. Such treatment can reduce shrinkage enough to assure that fit of the garment is more or less permanent, but no treatment can reduce dimensional change to absolute zero.

New theories on the phenomenon of felting shrinkage are discussed. In general, scientists agree that it is a combination of the tendency of wet fibers to move in the direction of their roots when being worked mechanically, and their entanglement after successive stretching, coiling and recovery, the bureau states. Animal fibers have a different friction effect in the direction of their roots than towards their tips. It is felting shrinkage that shrink-resistant treatments are designed to control, the bureau notes.

Commercial processes are divided in three groups: wet chlorination; resin treatments and latex treatments. Characteristics of each and trade marks of firms using these processes are listed in the bureau brochure.

When purchasing a garment labeled "shrink-proof," "shrink-resistant," or "washable," the consumer must bear three things in mind, the bureau asserts. These are: (1) the maximum percentage of shrinkage to be expected, (2) what type of laundering is permissible and (3) that the shrink-resistant label applies to foundation material and to all the trimmings of the garment as the basic fabric itself.

The consumer may wonder why all woolens are not made washable, the bureau observes. Manufacturers always at-

tempt to meet new demands and treated garments such as men's socks and some knitwear have been long available. The manufacturer knows that an extra cost and higher price is involved and that the touch or hand of the fabric may be altered. Continued demand will lead to greater marketing of treated fabrics as these problems are solved, the bureau concludes.

Fiber Society Fall Meeting Sept. 10-11

The Fiber Society will hold its Fall meeting Sept. 10-11 at Princeton, N. J. The tentative program includes the following papers: "Deposition of Soil on Various Textile Fibers," J. Compton and W. J. Hart of the Institute of Textile Technology; "Physics of Water Repellent Fabrics," C. H. Segall of Canadian Industries, Ltd.; "Surface Structure of Keratin Fibers," E. H. Mercer of Commonwealth Scientific and Industrial Research Organization, Australia; "Observations on some Unusual Keratin Fibers," John Facq, Toni Co.; "Law of Friction," H. G. Howell of Rayon Research Association, Manchester, England; "Finishing Agents and How They Affect Inter-fiber Friction," H. L. Roder of the A.K.U. and affiliated companies, Arnhem, Holland; "Frictional Properties of Filament Yarns and Staple Fibers as Determined by the Stick-Slip Method," C. W. Bartlett and H. A. Thompson of Tennessee Eastman Co.; "Some Physico-Chemical Views of Fiber Friction," Nils Gralen, director of Swedish Institute for Textile Research, Goteborg, Sweden (paper to be presented in absentia by Helmut Wakeman of Textile Research Institute).

Platt Acquires U.S. Rights To Casablancas

Platt Bros. (Sales), Ltd., has been licensed to supply the Casablancas system of high drafting in the United States on its latest roving and spinning frames, it is made known by Atkinson, Haserick & Co., textile machinery agent, Boston, Mass. This license now allows U. S. mills a wide choice of high-drafting arrangements on the Platt MS-2 roving frame and M-1 ring spinning frame, according to the distributor.

Platt Bros. formerly had been licensed to supply Casablancas in countries outside the United States and the present action now permits the firm to include the United States in its licensing. The U. S. rights to the Casablancas systems of high-draft were until recently held by H. & B. American Machine Co., Pawtucket, R. I., which went out of the textile machinery field.

Cotton Crop Estimated At 14,735,000 Bales

A 14,735,000-bale cotton crop for 1952—big enough to meet estimated needs and leave something over for reserves—was predicted Aug. 8 by the Agriculture Department. A crop of this size would be three per cent smaller than last year's big crop of 15,144,000 bales. But it would be well above the short crop of 10,012,000 bales in 1950 and the average of 11,775,000 bales produced in the ten years of 1941-1950.

The department's estimate of the current crop reflected drought damage in some areas of the cotton belt, as well as favorable conditions in some major producing states, particularly New Mexico, Arizona and California.

As of Aug. 1, the condition of the cotton crop for the nation as a whole was reported at 75 per cent of normal compared with 76 per cent a year earlier and 77 per cent for the ten-year (1941-1950) period.

The International Cotton Advisory Committee reported Aug. 10 that an easier cotton supply situation is indicated for the 1952-53 season which began Aug. 1. The committee, an intergovernmental organization of 27 cotton producing and consuming countries, estimated that last season's total supply in non-Communist nations was 38 million bales or over three-quarter million more than the year before.

Consumption in the same period was down by 1½ million bales, the survey indicated. In the United States the drop was about 1,300,000, in the United Kingdom about 400,000, and in continental Western Europe 300,000. That was partly offset by increases of about 350,000 in India and 200,000 in Japan.

As a result of increased supply and less usage, stocks outside the Communist countries on Aug. 1 were estimated to be about two million bales larger than a year before. Most of the increase was outside the United States.

Spinners' Sales, Backlog Show Rise In June

A drop in inventories and an upturn in unfilled orders highlighted June operations of carded sales yarn spinners, Textile Information Service reports. Unfilled orders on spinners' books as of June 28 amounted to 10.46 weeks' production and were 6.98 times stocks on hand with a backlog on May 31 equal to 8.92 weeks' output and 4.86 times inventories. As of June 30, 1951, spinners' unfilled orders amounted to 13.65 weeks' production and were 9.69 times the stocks on hand.

Total yarn in stock, including yarn made for future deliveries against unfilled orders, amounted to 1.51 weeks' production compared with inventories on May 31 equal to 1.835 weeks' output and with stocks on June 30 last year equivalent to 1.41 weeks' production. The last week of June, just prior to the traditional vacation period of the spinners, saw a modest step-up in the production rate

compared with the earlier weeks in that month. Sales were well in excess of output and shipments also ran slightly above the rate of production during the month.

According to statistics of the Carded Yarn Association covering reports from approximately 1.4 million member spindles, production in the week ended June 28 consisted of 31.4 per cent knitting yarn, 56.2 per cent weaving yarn and 12.4 per cent all others. On May 31, the percentages were 31.7, 52.3 and 16.0, respectively, and at the end of June, 1951, they were 31.6, 55.8 and 11.6.

Appoint A.C.M.I. Committee Chairmen

W. A. L. Sibley, president, American Cotton Manufacturers Institute, Inc., recently announced the personnel of the committees which will guide the many activities of the organization during the coming year.

Charles C. Hertwig, president, Bibb Mfg. Co., Macon, Ga., who was Mr. Sibley's predecessor as A.C.M.I. president, heads the foreign trade committee with Gordon Harrower, president, Wauregan (Conn.) Mills, as vice-chairman. Ellison S. McKissick, president, Alice Mfg. Co., Easley S. C., who was first president of the A.C.M.I., continues as head of the cotton textile mobilization committee.

Other committee chairmen follows: audit—F. E. Grier, Abney Mills, Greenwood, S. C.; budget and finance—H. K. Hallett, Kendall Mills, Charlotte, N. C.; cotton—A. K. Winget, American and Efird Mills, Inc., Albemarle, N. C.; legislation—J. Craig Smith, Avondale Mills, Sylacauga, Ala.; membership—Russell B. Newton, Dan River Mills, Danville, Va.; National Cotton Council—W. S. Montgomery, Spartan Mills, Spartanburg, S. C.; research—Walter Regnery, Joanna (S. C.) Cotton Mills Co.; statistics—Halbert M. Jones, Waverly Mills, Inc., Laurinburg, N. C.; tax—C. W. Kable, Jr., Deering, Milliken & Co., New York City; technical service—Harold W. Whitcomb, Fieldcrest Mills, Spray, N. C.; traffic—A. B. Edge, Jr., Callaway Mills Co., LaGrange, Ga.; Worth Street rules—Hearne Swink, Cannon Mills Co., Kannapolis, N. C.

Edward M. Fuller, Greenwood Mills, New York City, will represent the A.C.M.I. on the general arbitration council of the textile industry while A. K. Winget of the American and Efird Mills, Inc. will continue as A.C.M.I. representative on the Southeastern appeal board.

A.C.M.I. representatives on the textile industry committee on foreign trade are J. W. Barnett, Cannon Mills, Inc., New York City; Edward M. Goldberger, M. Lowenstein & Sons, Inc., New York City; Marion W. Heiss, Cone Mills Corp., Greensboro, N. C., and Frank H. Hillery, Wellington Sears Co., Inc., New York City.

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PENICK & FORD, LTD., INC., 420 Lexington Ave., New York City: Ceda. Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 806 Bona Allen Bldg., Atlanta 3, Ga.; J. H. Almond, Glenn M. Anderson, W. J. Kirby, Atlanta Office: C. T. Lassiter, Greensboro, N. C.; Guy L. Morrison, L. C. Harmon, Jr., 902 Montgomery Bldg., Spartanburg, S. C.; T. H. Nelson, Charlotte, N. C.; W. R. Brown, 1214 Liberty National Bank Bldg., Dallas, Tex. Stocks carried at convenient points.

PERFECTING SERVICE CO., 332 Atando Ave., Charlotte, N. C. Offices in New York City, N. Y.; Chicago, Ill; Philadelphia, Pa.; Cleveland, Ohio; Providense, R. I.

PERKINS & SON, INC., B. F., Holyoke, Mass. John L. Perkins, III, Vice-President in Charge of Sales.

PHILADELPHIA QUARTZ CO., Public Ledger Bldg., Philadelphia 6, Pa. Sou. Reprs.: P. Homer Bell, 2624 Forest Way, N.E., Atlanta 5, Ga.; Richard D. Greenway, 1306 Kings Drive, Charlotte 3, N. C. Textile Distributors: Southern States Chemical Co., Atlanta, Ga.; F. H. Ross & Co., Inc., Southern States Chemical Co., Charlotte, N. C.; Southern States Chemical Co., Greenville, S. C.; Marlow-Van Loan Corp., High Point, N. C.; Taylor Salt & Chemical Co., Norfolk, Va.

PIEDMONT PROCESSING CO., Belmont, N. C. Tel. 352-353.

PILOT LIFE INSURANCE CO., Jos. F. Freeman, Vice-President in Charge of Group Department, Greensboro, N. C.

PIONEER HEDDLE & REED CO., INC., P. O. Box 116, Sta. A, 1374 Murphy Ave., S.W., Atlanta, Ga., Tel. Raymond 2136-2137. Reprs.: Raymond J. Payne, Box 6000, Charlotte 7, N. C., Tel. 6-2025; J. Cantey Alexander, Box 56, Spartanburg, S. C., Tel. 5568; Charles B. Elliott, Box 433, Griffin, Ga., Tel. 4014; A. V. McAllister, Box 324, Greenwood, S. C., Tel. 7668, Mark W. Mayers, Pres. and Treas., Emile LeClair, V.-Pres., Glee B. Thompson, Sec., Frederick M. Suchke, Plant Mgr., Atlanta, Ga., Tel. Raymond 2136.

PNEUMAFIL CORP., 2516 Wilkinson Blvd., Charlotte, N. C. Sales Offices: Boston, Philadelphia, Atlanta.

PRECISION GEAR & MACHINE CO., Charlotte, N. C.

PROCTOR & SCHWARTZ, INC., 7th St. and Tabor Road, Philadelphia 20, Pa. Sou. Sales Office, Dryer Div.: 815 Johnston Bldg., Charlotte, N. C., Tel. 3-6971, John E. Schenck, Mgr.; Sales and Reclothing Branch, Textile Machinery Div.: P. O. Box 1361, Spartanburg, S. C., Tel. 6163, Joseph P. Christ, Mgr.

PRUFCOAT LABORATORIES, INC., Main Office and Factory, 63 Main St., Cambridge 42, Mass. (Tel. Eliot 4-0200). Sales Office: 50 East 42nd St., New York 17, N. Y. (Tel. Murray Hill 2-2240). Reprs.: Homer Arey, P. O. Box 641, Concord, N. C. (Tel. Concord 2-7211); A. B. Belmore, 155 Fern Ave., Collingswood, N. J. (Tel. Collingswood 5-4209R); Equipment Sales Corp., 1457 Bristol Highway, Kingsport, Tenn. (Tel. Kingsport 2740); McJunkin Corp., P. O. Box 513, Charlestown, West Virginia. (Tel. Charlestown 2-6144).

RAGAN RING CO., Atlanta, Ga. N. C. Repr.: John H. Foard, Box 574, Newton, N. C.

RAYBESTOS-MANHATTAN, INC., GENERAL ASBESTOS & RUBBER DIV., Passiac, N. J. Factory: North Charleston, S. C. Southern Distributors: Alabama—Teague Hdw. Co., Montgomery; Anniston Hdw. Co., Anniston; Long-Lewis Hdw. Co., Birmingham; Gadsden Hdw. Co., Gadsden. Georgia-American Mchy. Supply Co., Atlanta; Bibb Supply Co., Macon. Kentucky—Graft-Pelle Co., Louisville. North Carolina—Charlotte Supply Co., Charlotte; Dillon Supply Co., Raleigh, Durham and Rocky Mount; Kester Mchy. Co., Winston-Salem, High Point and Burlington. South Carolina—The Cameron & Barkley Co., Charleston; Carolina Supply Co., Greenville; Columbia Supply Co., Columbia; Montgomery & Crawford, Inc., Spartanburg; Sumter Mchy. Co., Sumter; Tennessee-Chattanooga Belt & Sup. Co., Chattanooga; Summers Hdw. & Sup. Co., Johnson City; Power Equipment Co., Knoxville; Buford Bros., Inc., Nashville; Lewis Supply Co., Memphis. Virginia—Industrial Supply Corp., Richmond.

REINER, INC., ROBERT, 550-64 Gregory Ave., Weehawken, N. J. Sou. Reprs.: John Klinck, 304 W. Forest Ave., North Augusta, S. C. (Creels, Warpers and Beamers), and H. Walter Fricke, Box 9155, Charlotte, N. C. (Hosiery Machines).

RHOADS & SONS, J. E., 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhoads & Sons, 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305. C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1539, Greenville, S. C.; A. S. Jay, P. O. Box 687, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Roslyn Rd., Winston-Salem, N. C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.

RICE DOBBY CHAIN CO., Millbury, Mass. Sou. Reprs.: R. E. L. Holt, Jr., Associates, P. O. Box 1474, Jefferson Bldg., Greensboro, N. C.

ROBERT & CO. ASSOCIATES, Atlanta, Ga.

ROSE & CO., E. F., Maiden, N. C.

ROY & SON CO., B. S., Worcester, Mass. Sou. Office and Supply Depot: 1623 N. Tryon St., Charlotte, N. C., W. F. Crowder, Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

ROYCE CHEMICAL CO., Carlton Hill, N. J. Sou. Repr.: Irving J. Royce, 2008 Belvedere Ave., Charlotte, N. C.

SACO-LOWELL SHOPS, 60 Batterymarch St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C., J. W. Hubbard (in charge), H. M. Walsh, W. A. Thomason, Jr., Selling Agts.; Atlanta, Ga., 101 Marietta St., Herman J. Jones (in charge), Miles A. Comer, Selling Agts.; Greenville, S. C., Woodside Bldg., C. Perry Clanton (in charge), Chas. S. Smart, Jr., Selling Agts.

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y. Sou. Office: 1510-12 Camden Rd., Charlotte, N. C., A. T. Hanes, Jr., Mgr.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga., Phone Elgin 5887, Vasser Woolley, Pres. Reprs.: John R. Seydel, V. R. Mills, A. Dillon, Atlanta, Ga.; W. L. Whisnant, Concord, N. C.; W. H. Cutts, Greensboro, N. C.; Welling La Grone, Greenville, N. C., in the Wetting and Finishing Div.; Dr. Paul V. Seydel, David Meriwether, Atlanta, Ga.; J. E. Spearman, Charlotte, N. C. Northern and Export Repr: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and penetrants only). Southwestern Repr: O. T. Daniel, Textile Supply Co., 1602 Cedar Springs, Dallas, Tex.

SHERWIN-WILLIAMS CO., THE, Warehouse and Office: 224 W. First St., E. H. Steger, Mgr., Charlotte, N. C. Sou. Reprs.: Guy C. Brazell, 231 Huron St., Decatur, Ga.; James E. East, 116 Tranquil Ave., Charlotte, N. C.; R. Eugene Roberts, P. O. Box 1302, Greensboro, N. C.; John W. Wheeler, P. O. Box 121, Greenville, S. C.

SIGNAL THREAD CO., INC., Chattanooga, Tenn.

SINCLAIR REFINING CO., Dist. Office, 573 W. Peachtree St., P. O. Box 1710, Atlanta, Ga., F. W. Schwettmann, Mgr., Lubricating Sales; O. R. Dyer, Mgr. Industrial Sales. Area Offices: Atlanta, Ga., Birmingham, Ala., Jacksonville, Fla., Miami, Fla., Tampa, Fla., Columbia, S. C., Charlotte, N. C., Nashville, Tenn., Jackson, Miss., Montgomery, Ala., Raleigh, N. C. Industrial Lubricating Engineers: J. M. Mathers, Columbia, S. C.; T. F. Morrison, Charlotte, N. C.; J. O. Holt, 1220 Dixie Trail, Raleigh, N. C.; W. H. Lipscomb, 414 McIver St., Greenville, S. C.; R. A. Smith, 121 Island Home Blvd., Knoxville, Tenn.; C. C. Nix, 1926 Sixteenth Ave., So., Birmingham, Ala.; T. A. Crossley, Montgomery, Ala.; L. M. Kay and H. G. Lane, 332 Eighth St., N.E., Atlanta, Ga., and H. H. Terrell, P. O. Box 131, Lakeland, Fla.

SINGLETON & SONS, RUSSELL A., Blanco, Tex. Sou. Reprs.: R. T. Hamner, P. O. Box 267, Gastonia, N. C.; Ralph Gossett, Jr., Ralph Gossett Mill Supplies, 15 Augusta St., Greenville, S. C.; James W. Heacock, 606 Hillcrest Dr., Talladega, Ala.; Paul S. Jones, 208 Lane Circle, LaGrange, Ga.; Phil Morgan, 401 S. Lewis St., LaGrange, Ga.; Julian W. Still, 1708 Peachtree St., N.E., Apt. 20, Atlanta, Ga.

SIPP-EASTWOOD CORP., Main Office and Factory, 40 Keen St., Paterson, N. J. Sou. Office: S. Fred Toll, 2116 W. Morehead St., Charlotte, N. C.

SIRRINE CO., J. E., Greenville, S. C.

SLIP-NOT BELTING CORP., Kingsport, Tenn., Otto Cox, Sales Mgr., P. O. Box 2061, Phone 4-3718, Greensboro, N. C.; E. S. Meservey, Ga. and part Ala., 1303 Clairmont Circle, Apt. 2, Phone Evergreen 6852, Decatur, Ga., Phone Dearborn 4523; G. H. Spencer, P. O. Box 1297, Gastonia, N. C., part N. C.; O. L. 'Blackie'' Carter, part S. C., Box 2206, Phone 5-2111, Greenville, S. C.; T. E. Doane, part Tenn., Northern Ala., Ky., W. Va., Box 44, Phone 3100, Kingsport, Tenn.; John R. Youngblood, part N. C., Va., Maryland, Pa. and N. J., Phone 284, 1012 St. David St., Tarboro, N. C.

SNOWISS FUR CO., B., Lockhaven, Pa. Sou. Repr.: R. E. L. Holt, Jr., P. O. Box 1474, Jefferson Bldg., Greensboro, N. C. Tel. 2-5681 and 3-5438.

SOLVAY PROCESS DIVISION, ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. Sou. Branch: 212 S. Tryon St., Charlotte, N. C.; H. W. Causey, Branch Mgr. Sou Reprs.: Earl H. Walker, High Point, N. C.; Richard Hoyt, 1216 Edgewood Ave., Jacksonville, Fla.; Robert P. Baynard, Charlotte, N. C.; Charles E. Varn, 307 Elmwood Dr., Greensboro, N. C.

SOMERVILLE-SEYBOLD DIVISION of HENLEY PAPER CO., 700 Murphy Ave., S.W., Atlanta, Ga.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN ELECTRIC SERVICE CO., Charlotte, Greensboro, N. C.; Greenville, Spartanburg, S. C.

SOUTHERN EQUIPMENT SALES CO., (N. C. Equipment Co.), Charlotte, N. C.

SOUTHERN SHUTTLES DIVISION, Steel Heddle Mfg. Co., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service. Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions. Davis L. Batson and Sam Zimmermann, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

SOUTHERN TEXTILE WORKS, P. O. Box 406, 202 S. Towers St., Anderson, S. C.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Office, 1616 Rhodes-Haverty Bldg., Atlanta 3, Ga., W. N. Dulaney, Southeastern Mgr.; Dan S. Miller, Asst. Mgr. Sou. Reprs.: H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, Rt. 5, Greenville, S. C.; Donald A. Barnes, 456 Sedgefield Rd., Charlotte, N. C.; L. A. Dillon, 1616 Rhodes-Haverty Bldg., Atlanta, Ga.; Nelson N. Harte, Jr., 1616 Rhodes-Haverty Bldg., Atlanta 3, Ga.

STANDARD MILL SUPPLY, INC., 2319 Hutchison Ave., Charlotte, N. C. Charles A. Knutton, Jr., V.-Pres.; J. Kenneth Sumner, Sales Mgr.

STANLEY WORKS, THE, New Britain, Conn. Sales Reprs.: G. H. Little, Harrison Bldg., Room 414, 4 S. 15th St., Philadelphia, Pa., Tel. Rittenhouse 9977; G. R. Douglas, 707 Columbian Mutual Towers, Memphis 3, Tenn., Tel. 8-7117; M. A. Hawkins, 3803 General Taylor St., New Orleans 15, La., Tel. Magnolia 5353; H. C. Jones, care The Stanley Sales Co., 410 Candler Bldg., Atlanta, Ga., Tel. Lamar 4651; G. J. McLernon, 209 Hubbard St., San Antonio 2, Tex., Tel. Travis 3653; Charles J. Turpie, Jr., 1412 Scott Ave., Charlotte, N. C., Tel. 3-7015; J. A. Dickson, P. O. Box 390, 112 Bales Ave., Phone 9-2812, Chattanooga, Tenn.; T. P. West, Jr., 10 Seminole, Dr., Greenville, S. C., Tel. 3-5932.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmermann, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

STEIN, HALL & CO., INC., 285 Madison Ave., New York N. Y. Charlotte Office: 1620 W. Morehead St., Charlotte, N. C., F. W. Perry, Mgr., P.O. Box 809; N. C., Va. and Tenn. Repr.: W. S. Gilbert, Charlotte, N. C.; S. C. Repr.: Crawford H. Garren, P. O. Box 303, Pendleton, S. C.; Atlanta Office: 80 W. Peachtree Place, N. W., Atlanta, Ga., E. D. Estes, Mgr., 1257 Durand Drive, N. W.; Ala. Repr.: J. E. Myrick, 302 24th St., Tuscaloosa, Ala.; Ga. Repr.: Rodney Simpson, 80 W. Peachtree Pl. N. W., Atlanta, Ga.

STERLING RING TRAVELER CO., 101 Lindsay St., Fall River, Mass. Sou. Reprs.: M. H. Cranford, 135 Walnut St., Chester, S. C.; D. R. Ivestor, Clarkesville, Ga.

TENNESSEE CORPORATION, 619 Grant Bldg., Atlanta, Ga., Tel. Walnut 4210. Sales Reprs.: F. B. Porter, Sales Mgr., L. S. Kaniecki, J. A. Shamp, C. H. Bronson, W. E. Tiller, and D. E. Lee.

TERRELL MACHINE CO., THE, Charlotte, N. C. E. A. Terrell, Pres., W. S. Terrell, Sales Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga. Bulk Plants and Warehouses in all principal cities. Lubrication Engineers: P. C. Bogart, Norfolk, Va.; W. H. Goebel, Roanoke, Va.; P. M. Edwards, Raleigh, N. C.; W. P. Warner, Greensboro, N. C.; C. W. Meadors, Charlotte, N. C.; J. S. Leonard, Greenville, S. C.; F. G. Mitchell, Columbia, S. C.; L. C. Mitchum, Atlanta, Ga.; A. C. Keiser, Jr., Birmingham, Ala.; J. E. Buchanan, Munsey Bldg., Baltimore, Md.; G. W. Wood, Charlotte, N. C.; J. H. Murfee, Greensboro, N. C.; G. B. Maupin, Greensboro, N. C.; W. T. Allen, Greensboro, N. C.; C. T. Hardy, Durham, N. C.; J. G. Loudermilk, Atlanta, Ga.; A. C. Evans, Macon, Ga.; J. S. Sammons, Birmingham, Ala.; J. M. Malone, Montgomery, Ala.; H. E. Meunter, Charlotte, N. C.; C. B. Fischer, Goldsboro, N. C.

TEXTILE APRON CO., East Point, Ga.

TEXTILE LABORATORIES, Box 1396, Gastonia, N. C.

TEXTILE SHOPS, THE, Spartanburg, S. C. E. J. Eaddy.

TIDE WATER ASSOCIATED OIL CO., 17 Battery Place, New York, N. Y. S. E. District Office, 3119 S. Blvd., Charlotte 3, N. C., K. M. Slocum, Dist. Mgr., Tel. Charlotte 2-3063. Sales Reprs.: L. A. Watts, Jr., 407 N. Allen Ave., Richmond, Va. Tel. Richmond 4-8944; W. R. Harper, 1806 Madison Ave., Greensboro, N. C., Tel. Greensboro 8784; L. G. Compton, Jr., No. 1 Robinson St., Elizabeth Apts, Greenville, S. C.; Tel. Greenville 2-9222.

TOWER IRON WORKS, 50 Borden St., Providence 3, R. I. Sou. Reprs.: Ira L. Griffin & Sons, Charlotte 1, N. C., Tel. Charlotte 4-8306.

U S BOBBIN & SHUTTLE CO., Lawrence, Mass. Sou. Offices: Charlotte, N. C.; Greenville, S. C.; Johnson City, Tenn. Texas Repr.: O. T. Daniel, Textile Supply Co., Dallas, Tex.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Office and Sales Room: 1903 Augusta Rd., Greenville, S. C. Sou. Reprs.: William P. Vaughan and Wm. H. Rose, P. O. Box 1048, Greenville, S. C.; Oliver B. Land, P. O. Box 1187, Athens, Ga.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

UNITED STATES TESTING CO., INC., 1415 Park Ave., Hoboken, N. J. Sou. Branches: United States Testing Co., Inc., 198 S. Main St., Memphis, Tenn., Tel. Memphis 38-1246, manager S. C. Mayne; 1700 Cotton Exchange Bldg., Dallas, Tex., Tel. Prosp. 2654.

UNIVERSAL WINDING CO., P. O. Box 1605, Providence 1, R. I. Sou. Offices: 1005 W. Morehead St., Charlotte, N. C. Agents: F. P. Barrie, H. H. Bucklin, Jr., and D. M. Dunlop, 907 Whitehead Bldg., Atlanta 3, Ga. Agents: J. W. Stribling and F. J. Barrows.

USTER CORP., Main Office, Charlotte, N. C.; 80 Boylston St., Boston 16, Mass.

VALENTINE CO., J. W., 612 S. Main St., Winston-Salem, N. C.; Box 278 Salem Station, Winston-Salem, N. C. T. Holt Haywood, Wachovia Bank & Trust Co. Bldg., Winston-Salem, N. C.

VEEDER-ROOT, INC., Hartford, Conn. Sou. Office, Room 231 W. Washington St., Greenville, S. C., Frank J. Swords, Sou. Dist. Mgr.

VESCO, INC., 5023 Wilkinson Blvd., Charlotte, N. C.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Sales Room at 358-364 W. Main Ave., P. O. Box 842, Gastonia, N. C. Phone 247. Also W. L. Hudson, Box 1313, Columbus, Ga.

WARWICK CHEMICAL CO., DIV. SUN CHEMICAL CORP. Main Office: 1010 44th Ave., Long Island City, N. Y. Sou. Plant: 907 White St., Rock Hill, S. C., J. D. Snipes, Mgr. Sou. Reprs.: M. M. McCann, Box 825, Burlington, N. C.; Minor Hunter, 1136 Skyland Rd., Charlotte, N. C.; H. Papini, E. R. Adair, Box 1207, Greenville, S. C.; W. E. Searcy, 425 Tilney Ave., Griffin, Ga.

WATSON & DESMOND, 301½ W. Fourth St., Charlotte 1, N. C. Repr.: John Wyatt, P. O. Box 701, Greensboro, N. C.; R. V. McPhail, 709 S. Jackson St., Gastonia, N. C.; A. J. Bahan and M. R. Woods, P. O. Drawer 779, Greenville, S. C.; Edgar A. Ball (Chemical Dept.), Charlotte, N. C.; H. K. Smith, P. O. Box 472, West Point, Ga.

WATSON & HART, 1001 E. Bessemer Ave., Goldsboro, N. C.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Reprs.: John Wyatt, P. O. Box 701, Greensboro, N. C.; Arthur J. Bahan, P. O. Box Drawer 779, Greenville, S. C.

WEST POINT FOUNDRY & MACHINE CO., West Point, Ga.

WESTVACO CHEMICAL DIVISION, 161 East 42nd St., New York 17, N. Y. (Food Machinery & Chemical Corp.) Sou. Office: Liberty Life Bldg., Charlotte, N. C., Bishop F. Smith, Dist. Sales Mgr.

WHITEHEAD ENGINEERING CO., Atlanta, Ga.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Machine Works Office and Plant, Dowd Road, Charlotte, N. C., R. I. Dalton, V.-Pres. and Sou. Agt.; Charlotte Repair Shop, Z. C. Childers, Sales Mgr.; Atlanta, Ga., Office, 1015 Healey Bldg., B. B. Peacock, Sou. Agt.; Spartanburg, S. C., 724 Montgomery Bldg., R. W. Dunn, Sou. Agt.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Repr.: William K. Shirley, 11 Wyuka St., Greenville, S. C.

WILKIN & MATTHEWS, 2511 Wilkinson Blvd., Charlotte, N. C. Hugh Wilkin and John Matthews.

Before Closing Down

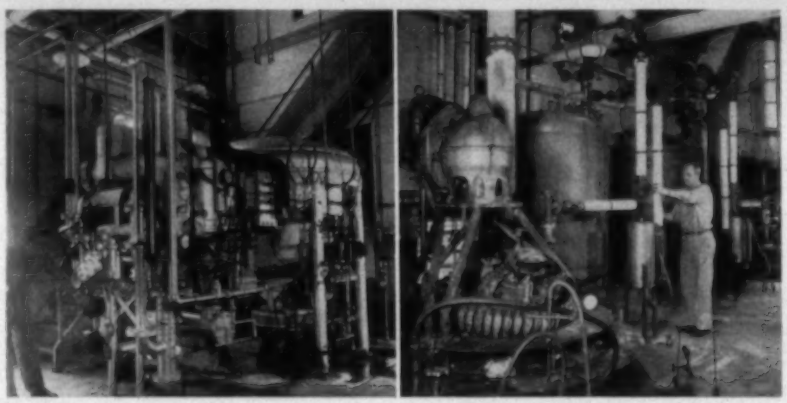
– TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED –

PERSONAL NEWS

George McCarthy, formerly superintendent of the Seneca (S. C.) Plant of the Utica & Mohawk Cotton Mills Division of J. P. Stevens & Co., Inc., has been appointed general manager of the Utica & Mohawk division succeeding Howard O. Chapman who has retired. Frank W. Walsh, who recently was named superintendent of the Clemson, S. C., gray goods plant, succeeds Mr. McCarthy as superintendent at the Seneca plant. W. H. Burton, assistant superintendent in charge of carding and spinning at the Appleton Co. Division of the Stevens company at Anderson, S. C., succeeds Mr. Walsh as superintendent of the gray goods mill at Clemson. All of the plants are in the Duncan Group of the Stevens Co.

Herbert F. Cochrane of Elkin, N. C., has been named general manager of the recently-established Newton, N. C., branch of Palmetto Chemical & Supply Co. of Cheraw, S. C. Palmetto produces chemicals for the textile and other industries.

E. G. Holland has been promoted from general overseer of bleachery and gray storage to assistant section superintendent of bleaching, dyeing and finishing at Schoolfield Division 3 of Dan River Mills, Danville, Va. . . . Glen C. Gambrell, formerly shift overseer of No. 2 Warp Spin at Schoolfield Division 1, has been promoted to technical superintendent of that division. . . . The following promotions recently were announced at Schoolfield Division 2: John R. Hawkins has been promoted from general overseer of 4A weave to assistant section superintendent of 4A and 4B weave and 4 gray inspection. J. Wesley Hornaday has been promoted from department overseer of 4A weave, sections 5-9, to general overseer of 4A weave. James A. Welch has been promoted from second hand to shift overseer, sections 5-9, 4A weave. Wayne E. Lassiter has been promoted from department overseer, sections 4-6 to general overseer of 4B weave. Earl Yelton has been promoted from shift overseer to department overseer, sections 4-6, 4B weave. Early L. Hearp has



ARNOLD, HOFFMAN EXPANDS HARKNESS & COWING DIVISION—Arnold, Hoffman & Co., Inc., with headquarters in Providence, R. I., has recently completed a series of major expansion moves at its Harkness & Cowing Division plant in Cincinnati, Ohio. Among the important equipment additions to the Harkness & Cowing plant is the new molecular still shown *at left above*, manufactured and installed by Distillation Products Industries, division of Eastman-Kodak. A completely new esterfication unit has also been installed, as pictured *at right, above*.

The expansion is the direct result of an earlier Arnold, Hoffman decision to move production of synthetic products adjacent to the basic raw materials production at the Harkness & Cowing Division. Thus, Harkness & Cowing, which was originally acquired by AHCO because of its prime position as a producer of fatty acids, has become the key plant in the parent firm's production of synthetic products, which include distilled esters, distilled oleoic acid, the Ahcovel line of substantive softeners, and wetting agents. The active expansion of vat dyestuff facilities in Arnold, Hoffman's Dighton, Mass., plant, which formerly housed the synthetic products manufacturing facilities, was another substantial reason for combining synthetic products production with the production of basic raw materials for these products in Cincinnati.

been promoted from second hand to shift overseer, sections 4-6, 4B weave.

A. G. Myers, president of Textiles, Inc., Gastonia, N. C., and chairman of the North Carolina Ports Authority, was in charge of the program Aug. 14 when the new port at Morehead City, N. C., was dedicated. Mr. Myers foresees a big industrial development for North Carolina, especially the eastern part of the state, with the opening of deep water ports at Morehead City and Wilmington.

B. L. Hathorne has joined the staff of Glyco Products Co., Inc., in the capacity of assistant to the vice-president in charge of development. Mr. Hathorne is a graduate of the Lowell (Mass.) Textile Institute and has an extensive background in the chemical industry. He recently resigned as manager of the auxiliary products division of the Geigy Co., prior to which he was a consultant to the textile industry. He was formerly in charge of research and field development for the Tubize Chatillon Corp. In his new capacity Mr. Hathorne will devote his time to Glyco's expanding activities, with particular emphasis in the development of new products.

Tom R. Moore has been appointed assistant to the vice-president and general sales manager of General Dyestuff Corp. Mr. Moore formerly was sales service manager for the Antara Chemicals Division of the company. Mr. Moore started his career in the chemical industry in 1935 with the Sherwin-Williams Co. In 1941, he joined National Carbon Co. as a sales engineer and became associated with the Antara Division as sales engineer five years later. Mr. Moore was appointed sales service manager of General Dyestuff Corp. in 1950.

Dan Cobb, foreman of the carding department at Bemis Bros. Bag Co., Bemis, Tenn., completed 50 years with the firm Aug. 10. Mr. Cobb was honored at a barbecue dinner and was presented an engraved silver pitcher. He has been foreman of the carding department for the past 35 years.

Charles R. Newson, assistant manager at Stanley (N. C.) Mills, was seriously injured Aug. 8 in an automobile accident. He suffered a fractured skull, broken collar bone, broken right arm and chest injuries. He was taken to Memorial Hospital in Charlotte, N. C., following the accident.

W. A. Rhyne has resigned as general overseer of spinning, twisting and winding at Flint No. 1 of Burlington Mills Corp. at Gastonia, N. C., to become plant manager for Hadley-Peoples Mfg. Co. at Siler City, N. C.

F. P. Mullendore has been appointed superintendent of Darlington (S. C.) Mfg. Co. to succeed N. Winroth, who is retiring Sept. 1.

James Brown retired recently as assistant manager of the Renfrew Bleachery of Abney Mills at Greenwood, S. C. A veteran of more than 50 years in the finishing industry, Mr. Brown had been associated with Renfrew for the past 12 years. He is known by many as the "Dean of Finishers."

R. M. Scronce has been named superintendent of Crescent Spinning Co., Belmont, N. C., succeeding the late Wade P. Stowe. Mr. Scronce has been connected with Crescent since 1929.

Robert W. Philip, vice-president and director of research at Callaway Mills Co., LaGrange, Ga., recently was honored by the Textile Operating Executives of Georgia for having served the group as secretary and treasurer for 28 years. He was presented a framed engraved copy of a resolution citing him for his valued service in the organization.

William N. Dunn, president of Dunn Woolen Co., Martinsburg, W. Va., recently was renamed to the board of the West Virginia Chamber of Commerce. He has been a director for more than ten years.

A marriage which took place at Charlotte, N. C., Aug. 16 and which holds particular interest to the textile industry was that of Miss Louise Lindsay Morehead, daughter of John L. Morehead, president of Leaksville Woolen Mills at Homestead and Spray, N. C., and Alan Thomas Dickson, son of R. S. Dickson, president and chairman of

BEFORE CLOSING DOWN

American & Efird Mills, with headquarters at Mt. Holly, N. C.

OBITUARIES

George F. Bahan, 72, sales manager for Bahan Textile Machinery Co., Greenville, S. C., died recently. Interment was made at Somersworth, N. H. Surviving are his wife, three brothers and a sister.

Arthur C. Boling, 76, retired master mechanic of the Richland and Capital City Plants of Pacific Mills at Columbia, S. C., died Aug. 10 at his home in Columbia. He had been associated with Pacific Mills for 46 years. Surviving are his wife, two sons, three sisters and a brother.

W. D. N. Ouzts, 59, assistant secretary of Riegel Textile Corp., died suddenly of a heart attack Aug. 14 at the mill office in Ware Shoals, S. C. Mr. Ouzts became associated with Ware Shoals Mfg. Co. in 1919 and served with that organization until the Trion (Ga.) Co. and Ware Shoals Mfg. Co. consolidated into the present corporation in 1946. Survivors include his wife, two daughters and a son.

T. C. Perkins, president of Atlanta (Ga). Brush Co., died Aug. 19 at the age of 70 after a lingering illness. He is survived by his widow, a son and a daughter.

S. B. Platt, superintendent and designer for Southern Worsted Mills, Inc., Greenville, S. C., died recently. Surviving are his wife, two brothers and a sister.

MILL NEWS

ABBEVILLE, ALA.—A plant for the production of sheets is unde construction here by Pepperell Mfg. Co. The new facility is expected to be completed by the end of the year. The new unit will allow the company to streamline operations at its Pepperell, Ala., finishing plant which has included sewing operations as well. It will also relieve pressure on the mill and allow installation of more looms, increasing the cotton mill's production by about ten per cent.

The only difference between stumbling blocks and stepping stones is the way you use them.—*Hamilton County* (Tenn.) *Herald.*

In the Spring the birds are vibrant with their joyful songs and chanties. In the Spring collegians' fancy lightly turns to thoughts of panties.—*Arkansas Gazette,* Little Rock, Ark.

A woman is young until she takes more interest in how her shoes fit than her sweater. — *Ellaville* (Ga.) *Sun.*

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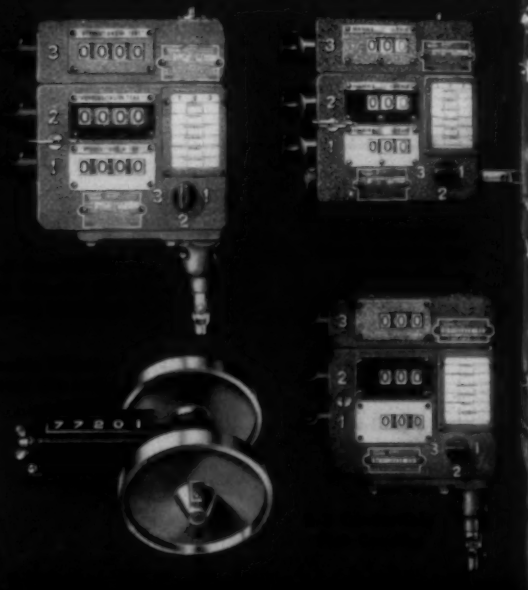

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